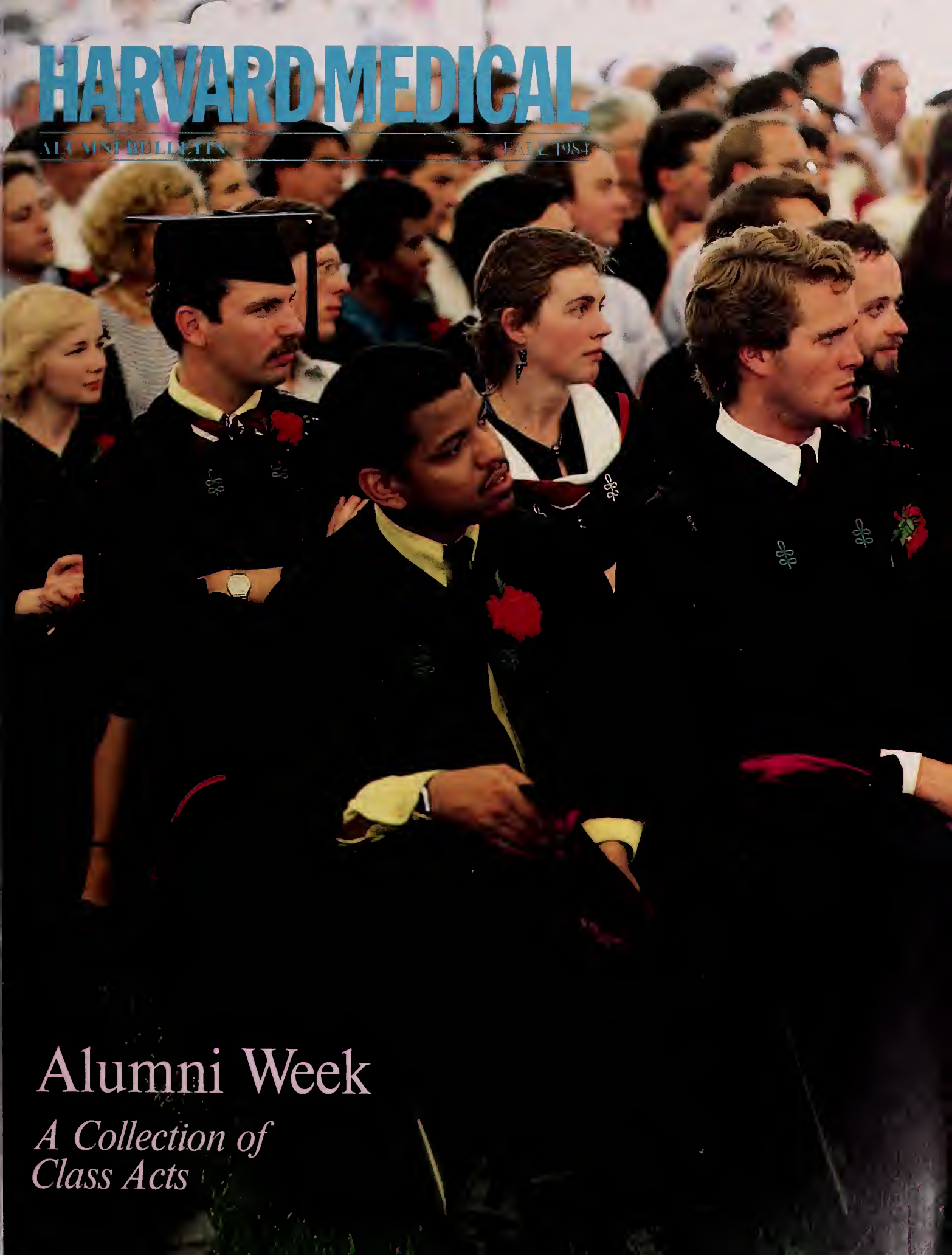


HARVARD MEDICAL

ALUMNI BULLETIN

FALL 1984



Alumni Week

*A Collection of
Class Acts*



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HARVARD MEDICAL

ALUMNI BULLETIN / FALL 1984 / VOL. 58 NO.3

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INSIDE H.M.A.B.

Once again Alumni Day marked the academic solstice. But this year it had a new name: Perry Culver Day. And Perry Culver Day it was, a sparkler of a day, a fitting tribute to himself, Mr. Harvard Medical Alumnus. Think of the occasion in the light of gleaming white canvas set against the greensward, crimson banners against the mellowed marble, reunion classes and hardy perennials milling about or quietly comparing the scene to how it was when.

Presiding over it all was Perry, a jovial, genial bear, exuding friendship from every pore, basking in the summer of his career. His was a job well done, worthy of his predecessors, Tom Lanman '16 of sainted memory, and Langdon Parsons '27 of sparkling wit. Next center stage forward, Bill Cochran '52, our new director.

Class Day, according to present custom, had been held the previous afternoon, following morning commencement in Cambridge—at which Robert Kaplan '84 spoke. Then the graduating class—with their proud if financially strained parents, and some with their own little ones—returned to the Quadrangle to be told by their classmates what they had been doing for the past four years and what offshore dangers might lie ahead.

Thursday evening was one of nostalgia and revelry by the reunion classes: only oral tradition remains.

Friday came in warm and clear. Deans gave greetings, Ira Marks '59 moderated, and Doris Bennett '49 led off with her customary grace and verve to describe a living national monument, a member of the first HMS class to graduate women—35 years ago! Allan Hobson '59 took a new look at that gentle thing called sleep. A nutritional parade followed, led by Charlotte Neumann '54, Irwin Rosenberg '59, and Richard Rivlin '59. Farrokh Saidi '54 closed the morning session with the latest word from Iran.

High noon brought tributes to Culver. Joe Murray '43B handed over the torch to Kay Clawson '52, with promises of things to come from Clem Hiebert '51, the new president-elect. Perry stepped down. Bill Cochran stepped up.

For Perry and Kits, for all of us, it was a day to remember.

—Gordon Scannell

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Issues and Answers

Money and Medicine

Physicians and Money (Spring 1984) is the most relevant of any issue of the *Bulletin* in dealing with the true issues of medicine in the 1980s. Medicine has never existed apart from its cost to society.

My current business manager has seen the modern transformation of American Medicine firsthand in physicians' offices over the past 25 years. Her non-academic observations, remarkable for their honesty and clarity, have helped me understand medicine today and its interface with the American public and our budgets. She tells me frequently that "insurance ruined American medicine." The longer I practice family medicine, the more I appreciate her sentiments.

Patients who *could not* pay the medical bills have been replaced by patients who *will not* pay. Medical insurance, as part of a complex of social forces, has produced a sense of entitlement in both the supplier and consumer of medical services. Nowhere is that more graphically, more embarrassingly highlighted than in the alumni's own answers to the informal survey of how they finance their own care ("A Fee For All"). The most common responses to the question of professional courtesy cited the insurance company, "the Blues," "insurance only," "accept insurance," and so on.

How can we deliver quality medical care in a rational, cost-effective fashion, when the majority of questioned HMS alumni continue to confuse patient care and insurance? If the intent is to provide the courtesy of free care to fellow physicians (a policy of questionable ethics, in any case, if not graciously extended to other individuals of far lower econom-

ic station), then how is it honest to accept the money provided by a third party? Once we bill insurance companies for the services rendered to individual clients, the doctor-patient relationship is dramatically changed, as noted by James Reinertsen '73, ("A Fee For All") and Sankey Williams '70 ("Modern Times").

The prevalence of insurance is but one of the many changes that characterize the history of medicine in this country. The third-party system has merely exposed some physicians' all-too-human greed; their behavior hurts no one person, they rationalize—and their bills are charged to no individual patient's checking account. Patients have also become greedy, for more and more service—all too often unnecessary, since they never bear the financial responsibility of their demands.

The newest insurance plans will attempt to undo the errors of the past, and to restore, within the current insurance schema, some semblance of patient and physician responsibility characteristic of medical practice only 25 years ago, as described by Sankey Williams. I believe many Harvard alumni need some reminders regarding the older principles of parsimony in achieving medical, scientific, and artistic elegance; very often less is better.

HMS has often struck me as rather aristocratic in its attitude about money. We never discussed it much, certainly not in public. Yet Harvard has had no problem enjoying the benefits of large endowments. (How often have students asked where the money comes from?) Money and all the complex issues of finance do deserve front-page status, along with quality.

The most powerful recent work on the subject of medicine and eco-

nomics was written by Harvard sociologist Paul Starr. His historical perspective on medicine in this country suggests that only naive physicians find the current upheaval in medical economics very surprising. I am excited to see evidence that the medical school is finally catching up with the rest of the university.

I am convinced that with merely the commitment to the long-standing principles of honesty, truth, and compassion so wisely expounded at HMS, mixed with a bit of common sense, also found in Boston from time to time, we can all practice in a manner which saves lives and money at the same time.

—Bruce Barnett '75

I commend the Faculty Advisory Committee on McLean Hospital for the unusually sensitive insight and courage in its report published in the Spring 1984 *Bulletin*. I believe it correctly assessed the risks that might arise from a linkage of Harvard with Hospital Corporation of America.

Of all those risks, loss of trust is the most critical. The moment the patient perceives that the system has placed top priority on costs or earnings, the doctor-patient glue softens, regardless of the truth of the perception. Alas, the physician does occasionally respond to for-profit incentives in attending more to what the system requests than to what the patient needs.

Quality and breadth of services and the relationship between management and professional staff are also at risk when cost cutting and profit margins are the bottom line. Also, the perceived need to place something above and independent of patient advocacy demoralizes the staff, thus

compounding the problem of trust.

The for-profit system only increases the risks rather than creating them *de novo*. The profit motive is not inherently malevolent; it merely increases the probability of unwanted behaviors which will occur in any system.

Even when the health professional is salaried—not assured of direct gain from cost savings—the decision to perform a procedure or order a test is easier to make on the basis of administrative fiat than after inductive or deductive reasoning. Thus, another critical resource contributing to optimal patient care—reasoning—may be dulled and subject to atrophy, a victim of the law of the conservation of energy.

I know these risks to be true: I work in a for-profit system, and know we must constantly strive to diminish the probability that the incentive for profit will control the system.

—Robert H. Jones '54

It is sickening for those of us who were privileged to attend Harvard Medical School when it was the best medical school in the country to watch its present slow, miserable, downward slide, giving place to Stanford, Johns Hopkins, and who knows how many more schools in the future. One prominent reason for this deterioration is, in my opinion, the wide and ever-broadening gulf between the beliefs and opinions of the faculty on one hand and what actually goes on in the real world of the practice of medicine on the other.

Symptomatic of this loss of contact with reality is the recent hassle over the efforts of the board of Massachusetts General Hospital to obtain financial relief from the problems fac-

ing McLean Hospital by enlisting the aid of a tax-paying business organization, Hospital Corporation of America.

From all reports, it seems that the HMS faculty decision to recommend that HCA's offer be refused was hasty and ill-advised. The trumpeting of the editor of the *New England Journal of Medicine* and the toadstool musings of the professor of health economics (whatever that is) may have helped lead the faculty down the yellow brick road.

The truth is that HCA and most of the taxpaying hospital chains (admittedly not all) have the same concerns as the HMS faculty. I can assure the faculty from personal experience—as the first chief of staff and recent chairman of the board of trustees of a 10-year-old, 400-bed HCA hospital operating in association with our 40-year-old, 95-man multispecialty group practice—that our brand of medicine is neither commercial, destructive, nor in conflict with the “service to the public” idea. It is not a part of some invidious “medical-industrial complex” (shades of the ‘60s and the “military-industrial complex” complex!).

In our experience with HCA, physicians have had no trouble receiving approval for capital fund expenditures to update equipment and facilities, admitting indigent patients with reduced or no charges, gaining full pro-rata financial support for our community-based intern-resident program when it was viable, obtaining generous contributions to community projects and health organizations, or meeting the public need in more ways than do many universities, so called “non-profit” hospitals, and medical school faculties.

We are convinced that the tax-

paying hospitals and their parent organizations will play increasingly important roles in the developing patterns of medical care in America. At the least, HMS faculty, students, and house officers should be exposed to such organizations in operation. At best, the HMS-hospital consortia might find solutions to the life-threatening financial problems they face by joining forces with these new pioneering, ethical, service-minded medicine and business professionals.

I would like to suggest that representatives of the faculty not be led astray by false prophets divorced from reality, but, instead, descend from their ivory perches, visit the flagship hospitals of HCA and other leading taxpaying hospital chains, and join us on the crest of the wave of the future.

—Barkley Beidleman '44

Trust the Russians?

This is a response to the letter headed “A New Malignancy?” by Edward B. Elmer '83 in the Spring 1984 *Bulletin*.

Dr. Elmer, who was born about 15 years after Hiroshima and Nagasaki, notes that the Soviet Union “has violated all 26 of its treaties with the United States thus far.”

I trust that Dr. Elmer will submit gracefully to being educated herewith. I quote from “Trust the Russians?”—a fact sheet produced by the Information Resources Task Force of the San Diego chapter of Physicians for Social Responsibility:

Treaties have been signed by the U.S. and the U.S.S.R. concerning nuclear weapons several times during the past 21 years, and *none have been broken* [my emphasis]. The treaties include: 1963 Limited

Test Ban Treaty, 1967 Treaty prohibiting nuclear weapons in outer space, 1968 Non-proliferation Treaty, 1972 SALT I Treaty, 1972 Anti-Ballistic Missile Treaty and 1979 SALT II Treaty not ratified by the U.S. but generally upheld by both countries.

International commissions provide forums for resolving issues of compliance with arms-control agreements.

Since 1972, each time the U.S. or the U.S.S.R. suspected that the other party had violated a treaty, the question was brought before a joint U.S.-U.S.S.R. commission—the Standing Consultative Commission. Every question brought before this commission has been resolved to the satisfaction of the United States.^{2,3,4} According to a report to the Senate prepared by the U.S. Department of Defense, U.S. Arms Control and Disarmament Agency, and the U.S. Department of State, Soviet compliance under nuclear arms control agreements “has been good.”

The references: 1) U.S. Congress, *Congressional Record—House*, June 27, 1980, p. H5839; 2) U.S. Department of State, “Compliance with SALT I Agreements,” *U.S. Department of State Bulletin*, April 1978, pp. 10-14; 3) U.S. Senate Committee on Foreign Relations, Briefing on SALT I Compliance, September 25, 1979, 96th Congress, First Session, (Washington, D.C.: U.S. Government Printing Office, 1979); 4) Robert J. Einhorn, “Treaty Compliance,” *Foreign Policy* (Winter) 1981-1982; 45: 29-47.

PSR was founded over 20 years ago in Boston. It now has a membership of some 30,000 physicians and their assistants, with 150 or more chapters in nearly every state in the union and is the largest component of IPPNW—International Physicians for the Prevention of Nuclear War. Its purpose is to educate our colleagues and our patients to the terrible

medical consequences of a nuclear war. As no medical treatment can be offered in that eventuality, the *only* remedy is prevention.

—J. I. Frederick Reppun '39

Pier Approval

I was very pleased to read of Arthur Pier's obvious good health in his modest and humorous sketch in the Spring 1984 *Bulletin*. As one of his beneficiaries, I would like to add to the record that he was an outstanding teacher of physical diagnosis. There were four of us from the Class of 1952 who had the good fortune of his instruction. I can think of no one I met over my entire career who was better at physical diagnosis of the chest, and only Samuel Levine and Alexander Nadas were better at physical diagnosis of the heart. I suspect that my interest in cardiology developed from, or at least was confirmed by, the revelations we learned to discover using only a stethoscope and our eyes, ears, and hands.

Arthur is a gentle physician, obviously loved by his patients. Although

relatively few patients in Phillips House at MGH were ever subjected to medical students, Arthur sought their permission in advance. After being prepared by him, they were incredibly gracious to us in that splendid setting. It was clear that they would do anything for Arthur Pier.

I was and still am grateful that I had the opportunity for such close contact with a marvelous role model for the practice of medicine.

—Warren G. Guntheroth '52

The editors welcome letters from readers, particularly in regard to articles published recently in the Harvard Medical Alumni Bulletin. Letters should be brief, double spaced, submitted in duplicate, and marked “for publication.” Not all letters can be used; those accepted will become the property of the HMAB and may be edited, although we are unable to provide pre-publication proofs.

ALUMNI COUNCIL

Starting with this issue, news of the Alumni Council will occupy its own *Bulletin* department. We begin with the results of the recent elections and the names and addresses of council members.

Alumni Day saw the installation of D. Kay Clawson as president, Joseph E. Murray stepping down to the past-presidency, and Clement A. Hiebert next in line as president-elect.

David E. Marcello Jr. stays on as vice-president and Warren Point as treasurer, but Lon E. Curtis replaced

Grant V. Rodkey as secretary. New councillors include George M. Bernier Jr., Barbara E. Bierer, and Adolf W. Karchmer. W. Bradford Patterson is the new representative to the Harvard Alumni Association, and William D. Cochran took over for Perry Culver as director of alumni relations and *ex officio* member of the council (see introduction to Alumni Day for more information).

Should you wish to reach any of your council members, here's where you can find them.

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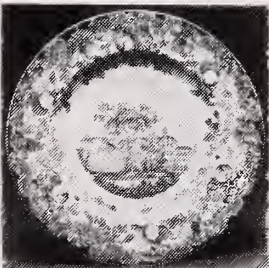
2 Harvard University
Holden, Hollis, Harvard 1794



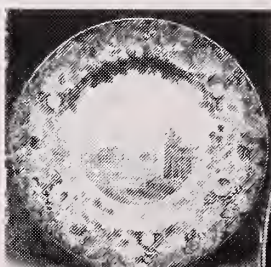
3 Harvard Yard looking
north west. 1858



4 Old Meeting House,
Harvard University 1830



5 Stoughton, Holden,
Hollis, Harvard University 1840



6 Massachusetts and
Dane Hall 1836



7 Harvard Law School
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8 Westerly view of Harvard
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Kudos for Carl

Why, on April 28 of this year, was Carl Walter '32 presented with a poster made from a 1957 photograph of Walter culturing a dirty mop? Because it was Carl Walter Day, an occasion to honor and celebrate the life and multifaceted career of the outgoing chairman of the Alumni Fund.

Trained in surgery, Walter led a crusade against hospital sepsis that reduced hospital and post-surgical infections wherever his recommendations were followed. "The mop gets in the wound more than the hemostat," was his battle cry. Interested in the problems of preserving blood, he invented the flexible blood bag, which paved the way for blood banking and the modern era of transfusions. The



Joseph Murray '43B presenting Walter with a plaque engraved with a record of Alumni Fund giving.





With Walter as guide, John Brner '49 tours the display of devices Walter invented and patented, including a radiant-energy foot warmer, a hot-water-bottle heater, a frozen plasma thawing pot, and blood lancets.



Walter and his wife Margaret with their six children (and spouses) and five of their 13 grandchildren.

first artificial kidney was constructed according to Walter's engineering specifications. His invention and subsequent manufacture of medical equipment and temperature-control and fire-suppression devices spawned a major international industrial network. He has donated his leadership to the Alumni Fund for the past 12 years.

At the HMS Bicentennial Convocation in 1982—"With appreciation

for notable effort and example in service to the School"—Dean Tosteson presented Walter with one of the first six Dean's Medals, an award inaugurated at that occasion to recognize outstanding service to the school.

Conceived of by longtime associates Menelaos Aliapoulios and Martin Litwin, both surgeons, and organized by a 17-member committee, Carl Walter Day filled a full day

and evening with tributes to Walter. As Dean Tosteson (with help of Shakespeare) said of him, "He is a man, take him for all in all, I shall not look upon his like again."

Walter plans to continue serving the school in work with the Development Office. Joseph Murray, outgoing president of the Alumni Council, will be acting chairman of the Alumni Fund until a successor to Walter is appointed. □

Honor Thy Teacher

Living up to the spirit of the Hippocratic Oath, "to hold my teacher in this art equal to my own parents," Harvard Medical School, the Boylston Society, and the outgoing class all honor outstanding teachers at the end of each academic year. This year seven faculty members received recognition.

During the Class Day exercises, Stephanie Annette Jones '84 presented three teaching awards on behalf of the outgoing Class of 1984.

Marian Neutra, associate professor of anatomy, received a plaque for excellence in pre-clinical teaching. Jones told Neutra, "your clarity of expression and accessibility" in the teaching of histology "were greatly appreciated." Neutra responded: "Don't expect clarity of expression now. I'm too overwhelmed. I want to assure you, the graduating Class of 1984, that we teachers too evolve, and we too learn from you, and from our mistakes. But one thing I haven't corrected is trying to bring feeling, interest, and drama into the story of how cells work together to form a healthy human body. I thank you for recognizing that effort."

Jones then presented plaques for "talent and sincere interest in clinical teaching" to two neurologists, Amy A. Pruitt, instructor at Massachusetts General Hospital, and Shahram Khoshbin, assistant professor at Brigham and Women's Hospital. "And here I thought you were asleep during those lectures!" a delighted Pruitt responded. "Seriously, the time I have in your classes is the most rewarding time of the year for me." Said Khoshbin, "As the third neurologist here, I'm glad to be recognized by all you ophthalmologists."

The HMS Prizes for Excellence in Teaching were presented at the

Faculty of Medicine meeting on May 30. From the 35 individuals nominated by second- and fourth-year students, a faculty/student selection committee chose two: Orah Platt, assistant professor of pediatrics, and William Kettyle, assistant clinical professor of medicine.

Platt gives a clinic on sickle-cell disease, instructs in the second-year pathophysiology course, and works with students on rotation at Children's Hospital. One student nominating letter described her as an "excellent teacher combining patience, a large fund of knowledge, and a sense of humor." Another said: "She not only teaches expertly on rounds but also by example in her dealings with her patients and hospital staff."

Kettyle teaches in the endocrine elective, the advanced medicine clerkship, and the ICM course at Mt. Auburn Hospital. Recently he took on the endocrinology course in the HST program as well. A student described him as a "sensitive clinician with an impressive ability to work well with even the most 'difficult' patients." Another wrote: "He gives generously of his limited free time, whether it's for teaching or advising. One never feels rushed when speaking with him even though one knows he has much else to do."

The fourth annual S. Robert Stone Award for Teaching, established to honor excellence in teaching at Beth Israel Hospital, went to Lewis Landsberg, associate professor of medicine. Landsberg is lecturer and section leader for both the second-year and



Marian Neutra

ELENA DE LA VILLA



Amy A. Pruitt

ELENA DE LA VILLA



Shahram Khoshbin

ELENA DE LA VILLA



Orah Platt

JUDITH BRENNING



William Kettyle

JUDITH BRENNING



Lewis Landsberg

JUDITH BRENNING



Samuel E. Lux IV

advanced endocrine pathophysiology courses, lectures in the HST endocrine course, and is ICM preceptor at BIH. He was chosen by a selection committee from among 37 teachers nominated by HMS students and BIH staff members. He was described in one nominating letter as "a physician with an amazing breadth of medical information which he applies critically and judiciously to clinical situations, and does so invariably in a teaching context."

"What sets him apart from the other outstanding instructors is his good nature, compassion, and enthusiasm for teaching," another letter read. "At the bedside he always puts the patient at ease. . . . He would show us physical findings or a given procedure and then explain the associated pathology and its significance. He was also interested in our learning about the patient's management, home situation, and hospital costs as vital concerns in the patient's total care."

Samuel E. Lux IV, professor of pediatrics, received the Boylston Society's Teaching Award, completing what might be considered HMS's version of the Triple Crown. Lux, who teaches in the hematology pathophysiology course and is attending physician in pediatrics/hematology/oncology at Children's Hospital, has now been honored for his outstanding teaching three years in a row, winning the HMS Prize for Excellence in Teaching in 1982 and a teaching award from the graduating Class of 1983. In nominating him for the Boylston award, students cited the all-day review session he held at the end of the hematology course as an example of how much he cares about students. One writer called him "unquestionably the best and most enthusiastic professor I've had at HMS," and continued, "He made hematology not only clear but interesting." □

Still Wanted

Anecdotes about Sparr's Drugstore for use in an article about the place and its history. Send by October 5 to *HMAB* staff, 25 Shattuck Street, Boston, MA 02115.

Martin First Dorn Professor

Joseph B. Martin, pioneer researcher in degenerative neurological diseases and chief of neurology at Massachusetts General Hospital, was recently named the first Julianne Dorn Professor of Neurology. The appointment was formally announced in March at a reception in honor of David and Julianne Dorn, who endowed the chair to support research at MGH in genetic disorders of the nervous system. The Dorns' interest in the hospital, and in endowing a professorship, came through Martin, who relinquished the Bullard Professorship to accept the new chair.



Joseph B. Martin

In 1981, when the Dorn Professorship was established, Dean Tosteson said of inherited neurological diseases: "Successful treatments have not yet been developed, and for some conditions even early identification of those at risk is still not possible." By the time of his appointment, Martin, a specialist in the study of neuroendocrinology and neuropeptides, had been instrumental in changing that picture.

Last fall Martin, with neurology instructor James Gusella and colleagues, used recombinant DNA technology to find a marker linked to the gene for Huntington's disease (HD), an inherited neurological disorder affecting 20,000 people in the U.S.; an additional 100,000 are at risk. The team is continuing to probe for the gene itself, and to develop a

test to identify those carrying the disease before its characteristic symptoms of involuntary movement and progressive deterioration of the intellect appear in mid-life. Early detection will both reassure those at risk who have not inherited the autosomal dominant disorder, and allow those carrying the disease to make informed reproductive decisions, taking into account the 50 percent risk of passing HD on to each of their children.

Martin has applied his knowledge of neuroendocrinology and neuropeptides to learn more about both HD and Alzheimer's disease. He and other investigators have found abnormal levels of neuropeptides (originally recognized for their regulatory role as hormones, now known to be the chemical messengers responsible for about 30 percent of the central nervous system's transmission) at the specific brain sites where each of these diseases causes premature cell death.

Martin has found one neuropeptide, somatostatin, at four to five times normal amounts in brains of those who have died from HD and in reduced amounts in cerebrospinal fluid of those who have died from Alzheimer's. Although such imbalances probably do not cause pathogenesis, he says, they "may contribute to the evolution of a patient's symptoms." His studies suggest that somatostatin is involved in the regulation of motor activities, possibly by enhancing the release and action of dopamine, a neurotransmitter. Found in unusually low concentrations in the brains of patients with Parkinson's disease (treated with administration of dopa), dopamine is known to contribute to the lack of coordination and involuntary movements symptomatic of HD.

"It is hoped that as more is known, pharmaceutical agents can be used to manipulate defective amounts of peptides and reduce symptoms," Martin continues. Already he anticipates launching a trial of one such agent, cysteamine, which selectively reduces somatostatin without toxicity, to try to counter some HD symptoms.

Martin is also director of the NIH-sponsored Center Without Walls, a cooperative effort of the four Massachusetts medical schools and some of their affiliated hospitals to support research and develop counseling and treatment programs for HD patients and families. □

JUDITH BRINNING

New Bullard Professor Finds Rare Diseases

Edward Peirson Richardson Jr. '43A, director of Massachusetts General Hospital's Neuropathology Laboratory since 1951, was recently appointed to succeed Joseph B. Martin as Bullard Professor of Neuropathology (see related story). This chair is one of four supported by the Bullard Professorship, established in 1906 as a gift from Louisa Norton Bullard and her children in memory of her husband, William Story Bullard.

Richardson is perhaps best known for his identification and description in 1958 of progressive multifocal leukoencephalopathy (now known as PML). In examining routinely processed histopathic preparations at the Neuropathology Laboratory (now the Charles S. Kubik Laboratory for Neuropathology, named for Richardson's

of viral diseases of the nervous system that might not be so well known now."

Some of the other syndromes Richardson has participated in identifying—such as dermatoleukodystrophy and diencephalic angioencephalopathy—have appeared in only one or two cases. "It's hard to know with conditions this rare if there's any practical value to drawing attention to them," Richardson comments. "The hope is, of course, that someone, who would not have otherwise, might recognize such a condition before a patient's death—or that a description will turn up a lead to causation. A small clue may turn out to be important."

Because he has maintained a clinical practice in addition to his research, Richardson has "been able to see neurological disease both from the standpoint of the pathological changes in the nervous system and the effects of the disease process on the patients." His research, which he describes as "general neuropathology, relating pathology to the clinical phenomena," covers the breadth of neurology, from abscess of the brain,

to demyelinating and degenerative diseases, to white-matter hypoplasia.

Currently, Richardson is studying Cockayne's Syndrome, a recessive disease that results in dwarfism and neurologic impairment, and is compiling a book on neuropathology with colleagues Raymond Adams, Umberto DeGirolami, and William Schanoene. He is also involved with Joseph Martin's studies of Huntington's Disease, performing post-mortem neuropathology evaluations to confirm diagnosis and assess the disease's progress. "We can't tell ahead of time what knowledge may be of value," notes Richardson. "One finding or another that turns up in such a search may be just the key that is looked for."

The terms of the Bullard Professorship encompass neurology and psychiatry. The other Bullard professors are: Richard Sidman '53, Bullard Professor of Neuropathology at Children's Hospital; Miles Shore '54, Bullard Professor of Psychiatry at Massachusetts Mental Health Center; and Sanford Palay, Bullard Professor of Neuroanatomy at the Quadrangle. □



JUDITH BRENNING

E. Peirson Richardson Jr.

predecessor as director), he noticed an unusual morphologic configuration in two cases. In collaboration with research fellow Karl-Erik Aström and resident Elliot Mancall, he identified the affected cells, defined the pathological changes, and named the disease.

"Multifocal leukoencephalopathy is relatively rare, but has broader implications than its rarity suggests," Richardson said recently. "It's a disease state that can result when people's immune defenses are reduced, and has implications in virology and public health. If the disease hadn't been recognized, there are aspects

Alumni Dinner in San Francisco

*October 23, 1984, during
the 1984 American
College of Surgeons
Clinical Congress.*

The Harvard Medical Alumni Association is holding a dinner on Tuesday, October 23, for alumni, associate and honorary alumni, spouses, and guests in attendance at the 1984 American College of Surgeons Clinical Congress.

Place: The Bohemian Club
San Francisco

Time: Cocktails—6 p.m.
The Owl Room
Dinner—7 p.m.
The Art Gallery

Cost: \$50 per person

Checks should be made payable to the Harvard Medical Alumni Association, 25 Shattuck Street, Boston, MA 02115. All checks must be received by Tuesday, October 16, 1984. Please include your name and your spouse's or guest's name with your check.

CLASS • DAY •



RICHARD WOOD

This year the medical students didn't wait for afternoon to begin their orating: for only the fifth time in this century, an HMS student was selected to give the graduate student English oration at the morning Harvard University Commencement. Applicants must first submit their speeches and then go through two rounds of auditions. The winner, Robert Alan Kaplan '84, admitted he was particularly happy to have "beaten all the law students." It was the second time in the past four years that Kaplan has been chosen over his peers for the honor of speaking at a major academic gathering. He also delivered the student

speech at the HMS Bicentennial Convocation in October 1982.

"The prospect of addressing such a diverse group is daunting," Kaplan began. "What folly to try to give advice or perspective to both the callow undergraduate and the wizened Extension School student. Yet there are some general principles that can help all of us enjoy richly satisfying personal and professional lives." He listed those principles under the headings of curiosity, tolerance, compassion, humility, and play. If we always value those principles, he concluded, "the perils and difficulties will be less onerous, and life more rewarding."

Back on the Boston side of the river, the principles of play and curiosity were enlisted with little delay, as the HMS ceremonies got underway. The talks by three HMS student



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speakers and neurology professor Martin Samuels can be found in the pages that follow. The assemblage was also addressed by Dean Goldhaber of the School of Dental Medicine, and guest speaker Stephen Jay Gould, Harvard professor and paleontologist.

"If you are fortunate," Goldhaber said, "your greatest satisfaction will come from the knowledge that you have helped people." He exhorted the students, one of whom was his son, Joshua Goldhaber '84, to "be concerned about the patient as a person, not as a disease entity."

Gould examined three theories developed to explain the extinction of dinosaurs 65 million years ago. Most likely, he said, is the Alvarez theory—which postulates that a giant asteroid struck earth, generating clouds of dust so heavy that photosynthesis ceased and the earth cooled, extinguishing 65 percent of life forms. "Good science," Gould pointed out, "is not only expansive, it also engenders social concerns." He concluded, "Wouldn't it be wonderful if that cometary shower, which was probably the *sine qua non* of our existence today, should, by its contribution to the formulation of the nuclear winter argument, help to save us from the coming holocaust?"

The Class of 1984 honored six of its teachers in the course of the ceremonies. Three received teaching awards: associate professor of anatomy Marian Neutra; and two neurologists: Any A. Pruitt, instructor at MGH; and Shahram Khoshbin, assistant professor at BWH (see Pulse).

A fourth award, explained chairperson Stephanie Annette Jones '84, was "intentionally not assigned to a specific phase of our training, so that we may recognize those individuals who may never have formally instructed us, but nonetheless made a significant contribution." She presented a plaque to Carola Eisenberg, dean of student affairs, reading: "The graduating classes of HMS and HSDM would like to thank Dr. Carola Eisenberg for her warmth, support, and encouragement."

Also honored were professor of histology Dan Goodenough and professor of medicine Arnold Weinberg

'56—one from the lecture hall, the other from the clinical side—selected by the class to help during the ceremony. It was their task to place and adjust the red medical school hoods on the students, a process formalized for the first time this year.

Dean Tosteson told the students, "The reward of a job well done is another job—and you're about to begin one." He spoke of the importance of beginnings in medicine—those found by a learning mind, and those that occur in each experience between a doctor and a patient. "It is the capacity," he said, "to recognize, respect, and celebrate these old beginnings—the newness in each encounter with a patient—that is the ground in which our profession is rooted." He concluded, "I hope you will preserve and strengthen a certain freshness and openness of mind that will allow you always to care for each patient as a unique person, and to learn from your experiences as doctors."

Thirteen students graduated cum laude in a special field, five graduated magna cum laude in a special field, and eleven prizes and awards were given in specific areas of achievement.

Richard Rox Anderson, magna cum laude: "Selective Thermal Damage from Pulsed Laser Sources."

Edward Metz Barksdale Jr., Kaiser/National Medical Fellowship Merit Award for outstanding academic achievement by a graduating minority student.

Deborah Lynne Blacker, Lee B. Macht Prize in Psychiatry to recognize excellence and accomplishment in mental health on the part of a Harvard medical student and to encourage his or her long-term commitment to a career in public psychiatry.

William Michael Canning, cum laude: "Studies of Reovirus Persistent Infections."

Cynthia Elizabeth Dunbar, Richard C. Cabot Prize for the best paper on medical education or medical history: "Prescriptions for Society."

Erik Hugo Lindgren Gaensler, Rose Seegal Prize for the best paper on the relation of the medical profession to the community: "Advances in Disease Control Engendered by the Smallpox Eradication Program."



Gary Hugh Gibbons, magna cum laude and Henry Asbury Christian Award for notable scholarship in studies or research: "Interaction of Physiologic Signals and Cellular Mediators in the Control of Renin Release." Kaiser/National Medical Fellowship Merit Award for outstanding academic achievement by a graduating minority student.

Joshua Irving Goldhaber, cum laude: "The Size of Nuclear Pores in the Living State."

Hobart Whitaker Harris, cum laude: "Dietary Fish Oil (N-3) but not Corn Oil (N-6) Reduces *In Vitro* Platelet Aggregation and Thromboxane B₂ Production in Rhesus Monkeys." Kaiser National Medical Fellowship Merit Award for outstanding academic achievement by a graduating minority student.

Edward Mark Hundert, Dr. Sirgay Sanger Award for excellence and accomplishment in research, clinical investigation or scholarship in psychiatry: "A Synthetic Analysis of Normal and Pathological Human Experience."

Kenneth Kiyoshi Ishizue, cum laude: "Studies on a Latent Proteoglycan Degrading Enzyme and a Synovial Catabolic Factor from Synovia Conditioned Media."

Lionel Bohdan Ivashkiv, cum laude: "A Genetic Analysis of Parathyroid Hormone Secretion and Signal Sequence Function."

Andrew David Leavitt, cum laude: "The Expression of Polyoma Virus Capsid Proteins in *Escherichia coli*."

Angel Wai-Mun Lee, cum laude: "The Role of Symmetry Constraints in Hemoglobin, an Empirical Energy Study."

Tsanyang Jake Liang, magna cum laude and Harold Lampert Biomedical Research Prize for the best paper reporting original research in the biomedical sciences: "Resolving the Roles of Polyoma HR-T Gene Products in Cell Transformation and Lytic Infection: Using the Technique of Oligonucleotide-Directed Mutagenesis."

Jeffrey Daniel Macklis, cum laude: "Non-invasive Laser Lesioning of Dye-Targeted Mammalian Neurons."

Ira Steven Nash, cum laude: "The Search for a Novel Mutant of *Corynebacterium diphtheriae*."

Robert Stuart Negrin, cum laude: "Characterization of a 185,000 Dalton Protein Specifically Associated with Transfectants Transformed with the Rat Neuroblastoma Oncogene."

David Conrad Page, magna cum laude and Leon Reznik Memorial Prize for excellence and accomplishment in research: "Homologous Single-Copy Sequences on the Human X and Y Chromosomes."

Joel Picus, magna cum laude: "The Immune System of a Naturally Occurring Hematopoietic Chimeric Primate: *Saguinus oedipus*."

John Crawford Samuelson, James Tolbert Shipley Prize for research, the results of which have been published or accepted for publication: "Newly Transformed Schistosomula Spontaneously Lose Surface Antigens and C3 Acceptor Sites During Culture." *J Immunol.* 1980; 124:2055-2057. "Schistosoma mansoni: Post-Transformational Changes in Schistosomula Grown *In Vitro* and in Mice." *Exp Parasitol.* 1980; 50:369-383. "Schistosomula of *Schistosoma mansoni* Clear Concanavalin A from their Surface by Sloughing." *J Cell Biol.* 1982; 94:355-362. "Loss of Covalently Labeled Glycoproteins and Glycolipids from the Surface of Newly Transformed Schistosomula of *Schistosoma mansoni*." *J Cell Biol.* 1982; 94:363-369. "Hatching Chemotaxis and Transformation of Miracidia of *Schistosoma mansoni*." *J Parasitol.* In Press.

Alan Rodney Shuldiner, cum laude: "Synthesis and Biological Properties of N-Cyclo-[LEU] Enkephalin."

Stephanie Hughes Taylor, cum laude: "Study of Angiogenesis and Its Inhibition."

Marilyn Louise Yodlowski, cum laude: "Evidence for Neurotransmitter Plasticity *In Vivo*: Effects of 6-OHDA on Cholinergic Sympathetic Innervation in Rats."

Requiem for Clarinet

by Martin Samuels

It was very difficult to think of what to speak to you about on this occasion—extremely difficult. Over the last few weeks I've asked many of the members of the Class of 1984 for suggestions. I thought I'd mention a few to give you an idea of my dilemma. One subject most of the class wanted was a lecture on the various subnuclei of the thalamus: you didn't want to waste 15 minutes on some non-medical subject. I would have been happy to do it, but I couldn't show any slides here: you know we can't give a medical talk without slides.

My wife had a good observation: "Remember how you felt when you graduated from medical school?" she asked. "These people are anxious. Try to make them feel a little better." I thought back to my own graduation. I had been about to start an internship at Boston City Hospital, and I was anxious. For one thing, I had never seen the fundus. The fundus, for the benefit of non-physicians, is in the view of the retina you have while looking through the ophthalmoscope. It takes a long time to see it, years really. In fact, not too long ago we were making rounds here with some third-year neurology residents when one of them, who was looking in an eye, suddenly said, "Oooh!"

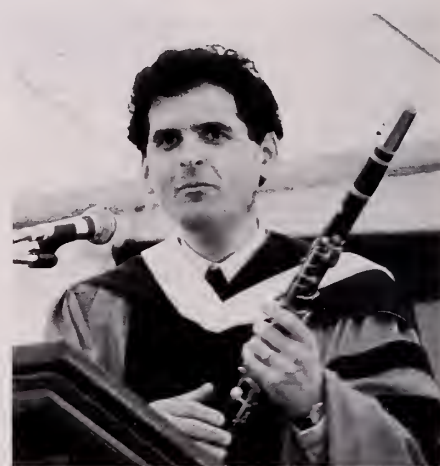
I said, "You just saw the fundus for the first time, didn't you?"

He said, "No, no: gas pain."

The fundus makes me think of the spleen. Just between you and me. I don't believe in the spleen. I don't think it actually exists. They say there is some organ that you can't feel and does nothing. The hematologists say it's there. I think they use it to explain a lot of obscure findings: "Where did those platelets go?"

"They were all eaten up by the spleen."

I was in my internship about six months when I found out my stethoscope was plugged up. That was the one they handed me when I entered



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my third year. Didn't make any difference to me then.

It will be all right for you too, because when you get in internship everybody's in the same boat, and they're going to help you. Just keep in mind that when you are on the other side of the boat you're going to help some of your younger colleagues when they come along, realizing that they haven't seen the fundus or felt the spleen either.

Several people I consulted suggested I tell you what a neurologist is. I thought I'd tell you a story told to me by Alan Roper at Massachusetts General Hospital. It goes like this: two hot-air balloon enthusiasts go up on a nice clear day to look at the countryside. After about two hours the clouds unexpectedly blow in and cover the balloon completely. The balloonists have no idea where they are. Two hours later the clouds have blown away, but now the passengers are totally disoriented. Luckily they see someone in a field below, so one of them yells down, "Where are we?"

The person on the ground looks up and says, "In a balloon."

One balloonist says, "Our luck to get a neurologist at a time like this."

The other asks, "How'd you know that was a neurologist?"

"That's easy. What he said to us

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had two revealing qualities. First, it was absolutely accurate, and second, it was completely useless."

Unfortunately, some of us remember our neurology teachers that way, thinking of them as taxonomists: "Bag 'em and Tag 'em 103."

I tell you this story not only as a joke, but to emphasize that things have dramatically changed, not only in neurology, but in medicine in general. It is an illusion to base your decisions about what specialty to go into only on what is currently therapeutic; what is therapy now is quackery tomorrow. I think you have to plan the direction of your lives in medicine with much more profound criteria than whether you can treat diseases in 1984.

Last, a colleague of mine made a nice suggestion for my contribution today: why not play the clarinet? I liked that idea, but there was one catch. I don't play the clarinet. I used to: I was never any threat to Benny Goodman or Pete Fountain, but I enjoyed it. The clarinet was one of those things that went out of my life when I entered medical school. It was something that had to go, along with many other sacrifices. There was lack of time and lack of energy.

I stopped playing and stopped practicing. Pretty soon I lost my embouchure, and then the pad started to leak and the corks got dry, and then I put it away in its box, and I haven't taken it out much at all. I've wondered to myself over the past years why this particular loss—I've given up so much to be in medicine, as all of you have—has bothered me so much, has been an irritant to me?

I think the answer is neurological. You all know that there are two people inside our heads: the left-hemisphere person and the right-hemisphere person. The first is the one who talks, who can have a good conversation. Unfortunately, the other doesn't have any language areas, or at least doesn't speak a language we understand. We don't have any way of communicating with the right-hemisphere person. Nonetheless, there it is locked in the same skull with the other person, very complex when you look at it grossly and microscopically. It is, in fact, very similar to the left hemisphere in its struc-

ture. It must be doing *something* all day.

What does the right-hemisphere person do? What is it thinking? What is it for? To try to answer these questions, we use a trick, perhaps an unfair one. We look at experiments of nature, as you all know—patients who have unfortunately suffered some accident, perhaps trauma or a stroke, that destroyed part of the brain. We look at what disappears and try to conclude what might have been going on in that brain when it was functioning normally. This is not entirely fair: it's like having a radio whose major purpose is to talk to you suddenly malfunction. So you take it down to the tube-test machine, take all the tubes out, find one that's blown out, replace it, and the radio starts talking again. Would it be rational to conclude that you just found the talking tube? Obviously not. You're dealing with a very complex system with a single output, but it's the closest you can get to an observation.

We know what happens when you destroy the left hemisphere. Something goes wrong with speech and there's a paralysis of the other side of the body. What happens when the right hemisphere gets sick? A very odd thing occurs. Those of us in medicine have seen it, of course. The content of language remains normal. What people say to commu-

nicate is perfectly normal. What is missing is what we could call the prosody of language: its emotional, musical side—that is, the clarinet. The prosody of life adds color, emotion, and feeling to life—and it turns out that the right side of the brain is probably, although we can't speak to it, at least as important to us as the left.

During our training, our left hemispheres won out. We're left hemisphere people—verbal, mathematical types. And we've had to give up the clarinet. Nonetheless, we can feel inside of us. We can feel the need to pick up that instrument, as bad as the result might be, to fill that other aspect of our lives. If you don't pick up that instrument, the time will come when you will have trained your left hemisphere to know everything there is to know about medicine, with all the right answers. You will have the right language, but you will not be able to tell who is sick, who is not sick, and what the patient really wants from you—because the patient does not tell you in words, he or she tells you in feelings. That is, it is how the patient makes you feel that tells you the most, not what he or she says to you. And that is your right hemisphere at work.



RICHARD WOOD



RICHARD WOOD

Medicine, Consistency, and the Golden Rule

by Edward M. Hundert '84

I believe, but I can't prove, that if you don't tune up that instrument all the time, it will go hopelessly out of tune. The corks will be hard and the pads will leak, and your embouchure will go, and then it will be very hard to get it out of its case again, just as it was impossible for me to start to play this clarinet again after it was left in the box for too long.

I encourage you, when you've traded in your clarinets to become docs, to pick up that new instrument and exercise the right hemisphere as much as you can. Keep it happy and it'll keep you happy, because not only will you be able to tell what the patients want, but you'll be able to tell with much greater clarity what you want—and that's the hardest question of all.

In conclusion, I'll quote from a poem called "Thought," by Christopher Pearse Cranch: "Thought is deeper than all speech/Feeling deeper than all thought:/Souls to souls can never teach/What unto themselves was taught." □

Martin Samuels is assistant professor of neurology, chief of neurology at Brockton-West Roxbury V.A. Medical Center, and is affiliated with Brigham and Women's Hospital. In 1982 he was the first recipient of the HMS Prize for Excellence in Teaching, and also won the Harvard-Longwood Neurology Training Program Teacher of the Year Award. Last year he was presented with a Class Day award for excellence in teaching by the Class of 1983.

My subject this afternoon is one that gives rise to a tremendous amount of misplaced anxiety in doctors at all stages of their careers, especially in young doctors like us. The subject is consistency. The anxiety comes from confusion about what it means to be consistent: confusion I'd like to try to sort out, perhaps reducing some of our misplaced anxiety as we begin our medical careers.

The scenario usually goes something like this: two patients of similar age and background are admitted to your service with severe strokes of similar degree. Your gut feelings tell you that in one case you really would like to take every measure—even to heroic extremes—to preserve the patient's life and restore whatever function can be saved. In the other case, you'd like to hang a morphine drip and minimize the duration of the poor soul's semi-existence. Our resulting anxiety stems from a sincere concern that our decision-making process is almost arbitrary, yielding literally opposite outcomes in similar cases—even with an issue as morally weighty as euthanasia.

Why does this apparent inconsistency worry us? Why are we so obsessed with consistency? We have been schooled in a scientific approach to medical practice; like it or not, each of us has been trained to be a medical scientist. "Science" means the application of a rational approach to problem solving, and rationality demands, first and foremost, consistency. If two lab values on a patient come back with inconsistent information, we cannot just let it go at that; we have to discover whether one of the values is wrong, or if there is some other hypothesis about the patient's problem that explains the actual compatibility of the two values.



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In the cases of the two stroke victims, we feel the need to resolve what appears to be a gross inconsistency. The resolution of this problem comes not from more lab tests or further scientific hypotheses, but from understanding the meaning and importance of a distinction between our moral principles and our moral actions. Of course, the first must be based on the second if we are to be true to ourselves—but the demand for consistency applies only at the level of principles. Indeed, part of the point of referring to a consistent set of moral principles is to steer us toward the best—not necessarily the same—action in different cases.

I first realized how dangerous confusion about this distinction can be last year, in a case where an obstetrician-gynecologist decided to do an abortion she thought wrong. The doctor had always been a strong supporter of the abortion rights movement, and she strongly believed in "abortion on request" as a "general principle." But in this particular case, an abortion had been requested only because modern technology had determined that the fetus was female.

and the mother decided she would rather have a boy. The doctor's gut reaction was that this was *not* a good reason for an abortion. But, because she had always agreed to perform requested abortions in the past, she felt that, "to be consistent," she would have to agree to do this one.

After further reflection she realized for the first time that her personal moral principle on abortion was much more complicated than could possibly be embodied in a universal rule like "abortion on request." And it was only then she realized that consistency applies at the level of principles, not actions—and this was one case where, to be "consistent," she would *not* do an abortion when it was requested.

To come back to my original example, as long as we each understand and can articulate our own personal moral principle about euthanasia, we can understand the *consistency* found in the decision to take heroic measures in one case and hang a morphine drip in another. Our moral principle defines the relevant characteristics of the two patients which led our conscience to different decisions in the two cases. Indeed it is only by reflecting upon such cases and determining which characteristics are relevant that we become able to articulate our own moral principles.

I suggest that these distinctions are especially a problem for *us*, because we have been trained not merely in the *scientific* approach to medicine, but in the *Harvard* approach to medicine. And we all know what *that* means: when you hear hoofbeats, think . . . emus! Why emus? Well, three reasons: first, zebras are already much too common at Harvard. Second, you might be the first to describe an emu with hooves and get a nice article in the *New England Journal*. And third, as the Attendings always tell us, "if you don't think of it, you'll never make the diagnosis."

This last point is the most important of all. We have been taught that good medicine means not only being rational, but seriously entertaining every possible known medical condition in every case—a task so overwhelming it often drives us to the

opposite extreme of seeking a handful of basic practical rules of thumb which we actually use to survive in our day-to-day decision making. If you ask your Attending, with all his or her years of experience, "What rule of thumb do you come back to when you are stumped by a case?" he or she does not say, "I generate a complete list of every possible known medical condition." Usually it's more like, "Well, I like to go back and think about the half-dozen or so types of things that can go wrong with people (infections, neoplasms, trauma . . .) and then work from there."

Unfortunately, we find ourselves in a similar bind when it comes to ethical problems. We would like to consult and articulate our complicated moral principles in every case. But often this is a process that can occur only after the fact—in the rested and reflective state that accompanies far too few of our decisions (especially in the early years of our medical careers).

So what rule of thumb can we use to help guide our moral decision making in the years ahead? I have asked many Attendings, and they almost uniformly suggest something like, "Oh, I like to think to myself: if this were my mother, what would I do then?" As far as I can tell, this must be some sort of golden-rule corollary: "do unto others as you would have them do unto your mother." Even those of us not going into psychiatry should be able to see the "methodological flaw" in this rule!

When pressed on this point, the Attendings usually say, "Well, what I'm really trying to get at with that rule is, 'if I were this patient, what

would I want done?' "—but then it becomes hard, they continue, to make objective decisions, having destroyed the psychological distance between doctor and patient it took four years of medical school to build up. But it is not only confronting our own mortality in euthanasia cases that creates a problem with the "if I were this patient, what would I want?" rule. After all, the patient may come from a different culture, with different religious beliefs and family structure.

I suggest using, at least as we begin our careers, not the rules "if this patient were my mother," or "if I were this patient," but "if this patient were this patient (which he or she is), but I *cared* about this person as much as I care about myself." *That* rule would, to cite just one benefit, steer us toward spending the extra time and effort it takes to consult the patient's family and friends about any views the *patient* might have expressed on euthanasia—just as we would want our own wishes carried out.

I hope that in our careers, when we catch ourselves becoming anxious that our moral decisions are inconsistent, we will turn that anxiety into an opportunity to learn about our own moral principles—where our "gut feelings" come from. And when practicality prevents the luxury of such a philosophical enterprise, I hope we can all come back to the "rule of caring," because caring about others really is the heart of medicine, the heart of the golden rule, and the heart of any ethical standard of professional practice.

Being a fan of "Hill Street Blues," I was going to conclude by saying, "Hey, let's be careful out there." But one of our classmates pointed out to me that that is probably the last advice any of us need: if anything we are all going to be *too* careful, *too* hard on ourselves, and most of us will not forgive ourselves for small mistakes that are inevitable even with superhuman carefulness. If we cannot forgive ourselves, how are we going to forgive our patients? If we do not know how to be gentle with ourselves, how can we be gentle with them? So, "Hey, let's be a little gentle on ourselves out there!" □



Rebelling Against Big Brother

by Mark B. Wenneker '84



ELENA DE LA VILLE

Remember those first days of medical school in Amphitheater C? As we gazed over the eager faces, we all knew who would become the surgeons, the researchers, and the family practitioners. Did any of us suspect then that our class would produce eight anesthesiologists, 10 radiologists, 14 ophthalmologists, and one of the lowest percentages of general internists and surgeons in the history of Harvard Medical School? I certainly didn't. What makes us so different? Maybe it's the \$30,000 debt that many of us have incurred, but surely business school was an easier way to make a buck. I think that behind these statistics lies a deeper meaning about how we wish to incorporate medicine into our lives.

There was a time in the not-so-distant past when graduation from medical school was like a marriage ceremony. Our medical forefathers (we have few foremothers) took their vows to devote their lives to medicine, for better or for worse, for richer or for . . . well, till death did they part. Residents—as the word suggests—resided in the hospital. Salaries were minimal, but who needed money when food and clothes were free and one didn't need an accountant to cal-

culate a debt repayment schedule? There was even a time when hospitals forbade their residents to marry. After all, that would be bigamy.

Some may say that times have changed. Yet, a few months ago as I was flipping through the pages of the *Boston Globe*, I happened upon Ann Landers' column, which included a letter from a "concerned mother" whose son, Jay, was an intern under stress. Poor Jay was so exhausted that he could no longer make clinical decisions. Worse, his mother was terribly worried. Knowing how fair and open-minded Ann is, I looked forward to a gentle but scathing critique of the medical training process and a discussion of the importance of a balanced life. Instead, she turned to a surgeon friend from Stanford for the definitive answer. He was far from sympathetic. Without qualification he asserted that "young doctors, in order to gain as much clinical experience as possible, would rather take care of patients than either eat or sleep." And I thought Stanford was laid-back! He went on to say that the "real shakers and movers in medicine are those with total commitment." In other words, "Sorry, Mom, Jay's just a wimp."

As a member of the Harvard family, I have heard again and again that I will be a future leader of medicine, a shaker and a mover. Nobody ever told me that being a leader meant preferring the care of patients to eating or sleeping, not to mention other enjoyable pastimes.

I ask my classmates, "How many of you want to be shakers and movers? And at what cost?" Most of us are not here today to take marriage vows. We were admitted to HMS because of our diversity of interests. Some of us were musicians, others journalists, many brilliant scientists; each was unique. The theme of our second-year

show was that we wanted to maintain that uniqueness. The career decisions of the Class of 1984 are messages to Big Brother, at Stanford or anywhere else, that our careers will not consume our lives.

To some of you, our views might be heresy. But today fewer physicians are willing to make a total commitment to their careers. Once doctors were idolized for their devotion to their patients, but the age of the medical hero is passing. As medicine has become more esoteric and technology more complex, doctors have distanced themselves from their patients. The traditional question, "Is



RICHARD WOOD

this the best treatment for my patient?" no longer suffices in the face of health-care budget restraints. When prescribing a liver transplant, we are forced to look beyond the patient's interest and consider the cost to society. Being a hero isn't as easy as it once was. Medical malpractice and a more aware public have reduced doctors from gods to mere mortals.

Until recently, few doctors would admit that total commitment had its personal cost. Yet the rates of suicide, alcoholism, and drug abuse among physicians—up to eight times higher,

Generically Yours

by Richard N. Mitchell '84

maybe more, than among the general population—attest to the toll stress takes on our lives. A recent *JAMA* article found the major source of dissatisfaction among primary care practitioners to be “too many patients to see in too short a time, too large a case load and too much time on call.”

All of us need time for our families. More young doctors, male and female, want to play an active role in child rearing and not abdicate that responsibility to their respective partners. We want to be more than just good doctors, we want to be good parents and spouses as well.

Will medical care suffer? That's doubtful. David Fraser '69, president of Swarthmore College, asserts that physicians are much more useful to their patients if they have allowed themselves to develop fully. There are already signs of structural changes in health care that will enable physicians to accommodate a more balanced life. The explosion of HMOs and group practices offers us good salaries and reasonable working hours. And believe it or not, even residency programs have responded to pressure by house staff for more humane working conditions.

Can we still be shakers and movers? I believe the answer is yes. But, whatever gains we make in medicine, we will not lose sight of our other priorities. At the very least, I trust we will be competent physicians with meaningful lives. I wish the Class of 1984 the best of luck. □

Categorical greetings to each of the various generic groups present. Largely forgettable opening remarks culled from the same vague generalities you've heard in every commencement since high school. Incredibly insipid joke to warm up the crowd, guaranteed to offend no one, and embarrass everybody. A couple of choice definitions—one from the unabridged *Oxford English Dictionary*, the other from *Dorland's*. Recounting why we came to medical school, what we did while we were here, and what made the Harvard experience unique.

Dramatic pause, scanning the audience to make meaningful eye contact. Reflection on the panic of first year, when memorizing the Embden-Meyerhof pathway somehow seemed critical to good medical practice. Dry chuckle remembering some class in-joke, which no one else understands because you had to be there. Wry recollection of ICM and discovering the health benefits of lugging *Harrison's* around on the subway. Wistful, humorous anecdote, crammed with profound insight about medical school education, about passing NG tubes.

Ridiculous cliché leading into the boring, mind-numbing middle passage where everyone sends his or her brain



out for a quick snack, and starts thinking about the party later on. Recounting of the trials and tribulations of the clinical years, waxing nostalgic for all those long on-call hours, and the camaraderie on rounds. Switching gears and changing the inflection in my voice, raising your hopes that the speech is coming to a close. Resumption of the previous drone so that you know I'm only halfway through.

Stirrings of liberal guilt and provocative, socially relevant breast-beating, immediately dismissed—of course—as irrelevant for graduating medical students staring into the ugly face of internship. *Pro forma* criticism of the medical school, irritating to the parents, embarrassing to the students, and ignored by the administration. Throat-catching, misty-eyed eulogizing to smoothe any ruffled egos. Remembrance of those who paid the bills, and of the friendly loan officers we've had the opportunity to meet.

Looking ahead to internship. Subtle innuendo about visionaries, and clever comment about the distribution of subspecialization in the class. Zippy little quotation lifted either from Lewis Thomas or last month's *Reader's Digest*, or both. Summation.

Hopeful wish for everyone. Exhortation. Exhortation. Close. □



ALUMNI • DAY •



June 8 was a scorcher. Even the day's low of 72 degrees was higher than any on record for that date, and as the day wore on, the mercury climbed to an unheard-of 97 degrees. Those in attendance at the HMS ceremonies downed cold drinks and sought the welcome shade of the big yellow-and-white tent, cooled by a large electric fan which at one point blew a speaker's notes from the podium.

But even record-breaking heat couldn't wilt spirits on this Alumni Day, formally designated Perry Culver Day to honor Culver as he stepped down after 13 years as director of alumni relations. Deans Tosteson and

Federman, and past-president of the Alumni Council Joe Murray '43B, paid tribute to Culver with short speeches and gifts. Three generations of Culvers (above right) were on hand for the occasion, including Perry's son Jay '81, and Jay's daughter Emily (circa Class of 2004).

Other notable groups included three generations of Blacklows (bottom right: Leo '30, Stephen '88, and Robert '59); the oldest alumni present (Merrill Greene '24, top far right, Maurice Pike '25, and Harry Savitz '25); and five of the first women to graduate from HMS 35 years ago in the Class of 1949 (Doris Rubin Bennett, Claire Kent Marshall, Edith

ALUMNI DAY



Schwartz Taylor, Raquel Eidelman Cohen, and Shirley Gallup). The women from that class not in attendance were Marcia Gordon, Louise Stone Clark, Dora Benedict Goldstein, Martha Caires Troutman, and two who passed away at the height of their careers, Joanne Tanner Taylor and Marjorie Kirk McCusick.

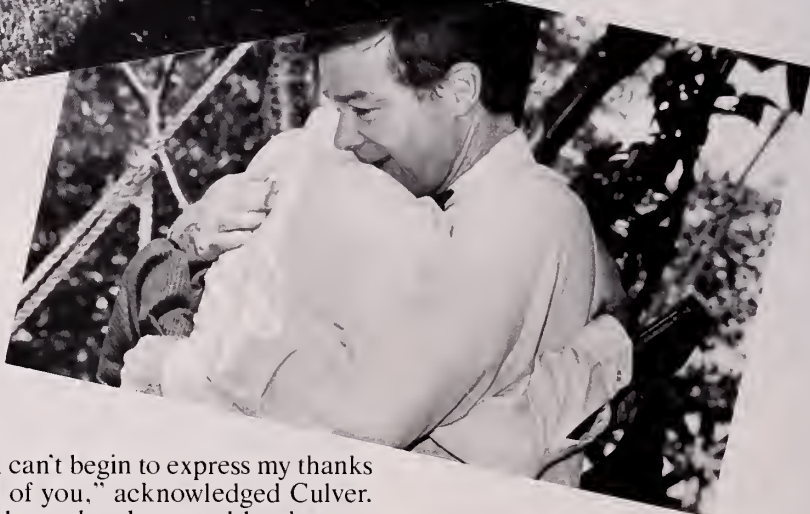
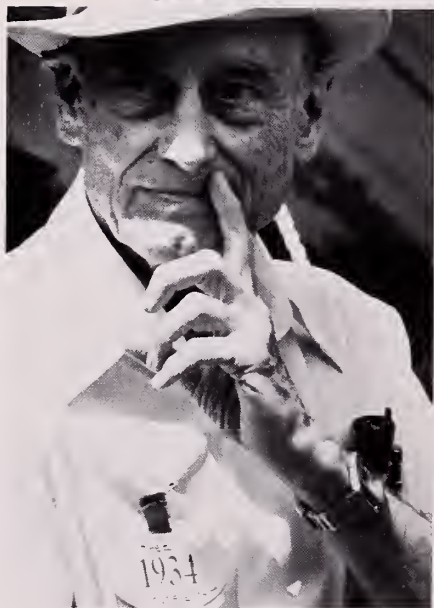
Each of the Alumni Day speakers, whose talks can be found in the pages that follow, briefly paid tribute to Culver. Farrokh Saidi may have topped them all when he said, "The program says this is Perry Culver Day; as far as I know, *every* day has been Perry Culver day at Harvard Medical School."

In presenting Culver with an engraved silver bowl from the Alumni Council, Murray said, "If I were to pick a model to embody the very essence of our school, if I wished to simplify and personify HMS—scrapping all ornamentation and digging into its very guts and soul—I would use the life and character of the physician to whom this day is dedicated."

Federman noted Culver's unique ability to "be in the hearts and minds of all of us," and Tosteson called him "a superb ambassador of the school, not only with the alumni, but in many of the national organizations important for the school and for medicine."



ALUMNI DAY



"I can't begin to express my thanks to all of you," acknowledged Culver. "I've been deeply moved by the outpouring of letters, telegrams, and cards from alumni and patients from all over. I have a great deal of thanks and love and affection for all the people I've had a chance to work with." He concluded, "My philosophy of everyday experience at HMS has been not 'the ties that bind,' but the 'bond that ties'—and I'm not moving out. It's hail, not farewell." Culver will continue to work with the school as it develops a major capital campaign.

The new director of alumni relations is William D. Cochran '52, asso-

ciate professor of pediatrics at HMS and director of newborn nurseries at Beth Israel Hospital. He has served on the Admissions and Alumni Survey committees.

Alumni Day also saw the official retirement of Carl Walter '32 as chairman of the Alumni Fund (see Pulse). Walter also plans to continue to serve the school, working with the Development Office. Joseph E. Murray '43B, past-president of the Alumni Council, will serve as acting chair until Walter's successor is named. □

Sleeping Around: Adventures in the Dream Trade

by J. Allan Hobson

SINCE GRADUATING FROM MEDICAL school, each member of the Class of 1959 has spent roughly two years in an innocuous state of insanity characterized by visual hallucinations, delusions, extraordinary cognitive abnormalities, and emotional intensifications—of which we are, in the main, oblivious. The total figure of two years is derived from the reasonable assumption that we have spent 25 percent of eight hours of sleep, or two hours per day, times 9,125 days, or 18,250 hours in normal nocturnal madness.

The fact that our dreams occur during a physiologically programmed brain state as regular as breathing out and breathing in was, like DNA's double helix, discovered in 1953. We are living not only in the age of genetics, but in the age of the brain. For the first time in history we are beginning to understand what goes on in the extraordinary universe each of us carries around on our shoulders. With the discovery of REM (rapid eye

Since graduation, every member of the Class of '59 has spent roughly two years in an innocuous state of insanity—of which we have been mainly oblivious.

movement) sleep and dreaming, we are learning about the inventive aspects of the brain, as opposed to the copying aspects we studied in the reflex era during which most of us were educated.

REM sleep is controlled by a neuronal oscillator in the pontine brain stem, set in motion every day during the rest phase of the circadian clock in the hypothalamus. That oscillator turns on our brain every 90 minutes in every night of sleep in adult humans. It whisks our eyes around in oculogyric fandangos, sends our brains coded signals about the eye movements, and then, like the dean at graduation when he sent our class out into the world, says, "Good luck in making sense of it all."

Harvard Medical School activated



our brains and pumped us full of information, but it was up to us to synthesize a personally meaningful message. So it is with our dreams: our brains are activated, and we synthesize stories related to our own histories.

The physiological process of REM sleep appears to be quite simple. Aminergic cells in the pontine brain stem turn off progressively in sleep, releasing from inhibitory restraint their vast post-synaptic domain—namely, the cholinergic cells that are involved in perception, thought, feeling, and action. It's a little like giving one part of your brain permission to go wild in the privacy of your boudoir. We call this mechanism reciprocal interaction. You're spared the embarrassment and responsibility for your dream actions by two mechanisms. The first is amnesia, as the aminergic cells essential to learning and memory have been shut off. Second, the clutch is pulled out, so all the motor acts that otherwise would be stimu-





The Dreamstage exhibit depended on a single tour de force: having a human subject sleep in the middle of an art gallery.

lated by these highly formed brain processes are blocked by active inhibition of the motor neurons.

This process is fully developed at 30 weeks of gestation, when it occupies 100 percent of human time. Clearly, sleep cannot any longer be considered rest and relaxation only; the REM state serves a creative, pre-programming, and possibly constructive function. The overrepresentation of REM sleep *in utero* indicates that it may convert a limited set of genetic instructions to a functional program of brain action in which all circuits can be tested every night of our lives—most important when our brains are developing.

NOW, MY MAIN POINT HERE IS NOT to detail sleep research, but to explore some artistic aspects of sleep science, and their communication to the public. Over the past 20 years—sitting in the dark probing brains with microelectrodes, watching the action potentials dance across the oscilloscope screen, and looking at beautifully stained brain sections—I've often found myself entering ecstatic and imaginative visionary modes. And I've gradually developed a sensorimotor picture of how brains work. After all, it has been through my senses that I've made my discoveries and conceptualizations in sleep research.

My initial pleasure and excitement at the brain's dynamic beauty compelled me to bring visitors to the lab. They were invariably moved, and astounded me, at first, by asking, "Why haven't you told us what you do?" And I realized that I couldn't tell them as easily as I could show

them. My growing conviction that it was impossible to describe in words the beauty and complexity of brain action led me to form a concept for public education in brain science.

During the winter of 1974, Boston was beginning to dream up its fabulous Bicentennial celebration. As in dreams, there were unusual mixes of people and wild brainstorming. Doors opened, barriers between fields collapsed, and ideas floated up. My wife, Joan, was put in charge of the Bicentennial's Arts Project, and suddenly lots of artists were coming to our house. I invited some of them to the lab. Musician Paul Earls, who was working to realize sound visually, looked at my single-cell traces and suggested we make a laser oscilloscope. He conceived of applying microvoltages from the brain to the optical scanning mirror controlling the laser path, and then broadcasting it as far as 1,000 feet. We could amplify the action potentials of the cells as much as we wanted, because laser light loses little intensity and holds focus over great distances.

FROM THAT BEGINNING CAME THE idea to form an exhibit which would open the sleep lab to the public. We called the exhibit "Dreamstage," to imply four meanings. First was the stage as a scaffold, the physical structure on which our thought depends,

the brain itself. The second meaning was a phase or a stage in the physiological sense, the REM stage, in which dreaming occurs. Third was the stage in the sense of a drama, because, after all, our dreams are fantastic scenarios. Fourth was stage in a developmental sense, because we hoped to be able to develop this pilot project into something more ambitious.

The realization of the exhibit depended on a single *tour de force*: having a human subject sleep in the middle of an art gallery. Nobody believed we could accomplish this feat, which shows how naive and simple-minded we all are about sleep. The trick was to put the demand on waking: subjects were hired to stay *awake* when *not* in the exhibit, and given free license to do whatever they wanted when they were in it. They could read books or the newspaper or look at the public if they liked, but none did. They all fell asleep within 30 minutes, and some were watched by as many as 5,000 people a day.

Visitors stood spellbound outside the glassed-in bedroom. Some could not believe they were seeing natural sleep. They suspected that the subject was acting or had been drugged.



Many said it was the first time they had ever consciously observed sleep, the state in which we all spend one-third of our lives. Visitors, like scientists, thus "discovered" a commonplace.

This counter-intuitive, sometimes troubling, concept of a sleeper in a gallery created a tension and a dynamic that carried the exhibit through its initial run at Harvard's Carpenter Center for the Visual Arts in 1977,

and through its subsequent five years as a touring show.

As we were planning Dreamstage, Bob Gardner, director of the Carpenter Center, introduced us to photographer Ted Spagna. Ted had made one of those inadvertent winks at an auction at Parke-Bernet, and had come up with a time-lapse camera set-up. To do something with it, he had set it up in his room and photographed himself sleeping. He then spent two years photographing human sleep, carting his rig from bedroom to bedroom on the New York subways. Paul Earls and I were excited to find in Ted's work technical finesse and a new scientific approach to sleep behavior—for I detected in Ted's photos periodic changes of position due to the sleep cycle. It was a little embarrassing for me, a scientist, that I had never thought of photographing sleep. It took an artist to think of it.

WE PLANNED THE EXHIBIT IN TWO main areas: a dark space and a light space. Visitors entered the exhibit through the light space, which was filled with informative media about the sleep cycle. Ted Spagna's photos figured prominently, as still graphics and a slide show. We told the history of neurobiology in relation to sleep through a collection of original scientific drawings and photographs. These graphics, carefully selected and mounted, emphasized the notion that art and science are overlapping and mutually enhancing activities. Though most lay visitors found the captions difficult, they could still marvel at the imagery and get a feeling for the scientist's aesthetic, magical response to the beauty of the brain form.

Entry to the dark space required removal of one's shoes. This act triggered presleep rituals in visitors and became an operant leading to acceptance of the odd conventions of the dark space. It controlled behavior enormously well: even children were quiet. A carefully dissected whole human brain floated in a lucite light box just outside the sleeper's glassed-in room; another light box showed x-rays of the skull. A giant mural of "neuronal landscapes"—photomicrographs artist Ragnhild Karlstrom

We played the sleeper's brain waves through audio amplifiers. One reporter described this "brain music" as "hinting of some future world."

made from my Golgi and Klüver-Barrera histological material—covered one wall.

The photomicrographs respected the intrinsic beauty of brain cells and added a poetic and sometimes abstract dimension to them. We decided against labeling these graphics, to avoid weakening their impact. We felt that seeing may transcend both naming and understanding, if a clear visual model is communicated. Even for me, this direct visual involvement with brain structure provided a new experience of a well-known subject; for naive visitors, it elicited admiration, wonder, and curiosity.

Paul Earls's laser oscilloscopes of the sleeper's brain waves (green), eye movements (blue), muscle tone (red), and heart activity (orange) lit the walls of the dark space above eye level. The continuous sweeping and change in amplitude of these nervous squiggles told the main story: that the brain is constantly active and changing during sleep, and that sleep behavior and mentation—including dreams—are functions of this activity. We played the signals through audio amplifiers, generating music that we broadcast throughout the gallery. One reporter described this "brain music" as "hinting of some future world." The public quickly learned to recognize when the subject was dreaming by listening to the music, which be-



came high-pitched with amusing little beep whistles when the eyes began their dream dance. The audience was particularly aroused by the dramatic changes in light and sound when the sleeper ended a cycle and shifted position. Thus visitors became involved in the observational process.

Those who chose to visit the sleep lab could see the same brain activity transcribed in its traditional black-and-white form, and could converse with the technician about the interpretation of these signals.

The thick foam carpet on the floor of the dark space, coupled with the above-eye-level position of the laser oscilloscopes, encouraged visitors to lie down. Many actually slept—not usually considered a good reaction to a show. But in this case it was exactly what we wanted. We tapped people on the shoulder and got dream reports from them, as well as from the subject in the sleep chamber. We also buried tape-recorded dream reports in pillows, where they wouldn't fracture the pre-verbal ambience of the dark space. Like all the dark space elements, they were unlabeled and had to be "discovered" by visitors.

BECAUSE OF ITS MANY UNUSUAL features, Dreamstage attracted a felicitous and widespread response from the media. To our delight, the initially superficial voyeuristic reaction was followed by a deeper, ongoing interest in the scientific aspects of the show. The visual material in the catalog has been reproduced in *The New York Times Magazine*, and in magazines and newspapers in Ecuador, Holland, Italy, Japan, and the Soviet Union.

After its Carpenter Center run—at which attendance broke all records—Dreamstage toured San Francisco, Atlanta, St. Louis, Seattle, and returned to Boston, this time at the Museum of Science. I have also directed a French version of the show, called Dreamscreen, in Bordeaux. We learned a lot en route—for example, that science museum visitors expect to be instructed, whereas art museum audiences are content to be mystified. We therefore trained groups of volunteers to serve as “explainers.” We also found that many children thought the dark space was a spookhouse and the sleeper a corpse.

Children between the ages of eight and 12 found the brain rather disturbing, but those under eight accepted it easily, which surprised us. Then one January a medical student interviewed children to find out what they thought was going on. It turned out that those eight and younger thought the brain was that of the sleeper: that when he entered the exhibit he removed his brain, put it into the box, and checked into the sleep chamber. When we made the mistake of correcting them, they became considerably more upset than the older children, who were simply reacting to the rather visceral appearance of the

*Young children thought
the brain on exhibit
was the subject's:
that he removed it, put it
in the lucite box, and
checked into the
sleep chamber.*

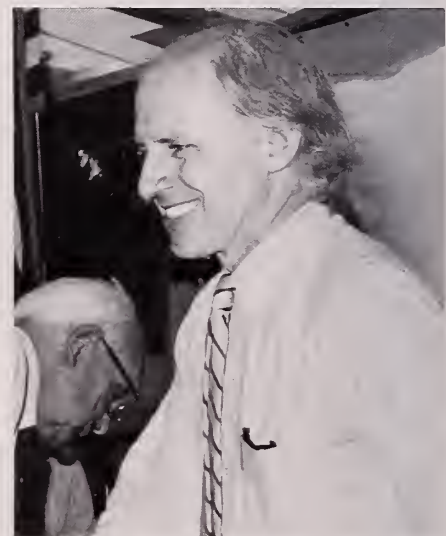
tists, who have only begun to examine this window on the brain and the mind. It seems to me that in REM sleep we are seeing combinatorial play, as the brain looks at all the comparisons in its information store and checks out its sensorimotor circuits. Here's a quotation on this topic from a man whose hair was even more unkempt than mine, who rode around on a bicycle and didn't cut his lawn:

The physical entities which seem to serve as elements in thought are certain signs and more or less clear images which can be “voluntarily” reproduced and combined. . . . But taken from a psychological viewpoint, this combinatory play seems to be the essential feature in productive thought—before there is any connection with logical construction in words or other kinds of signs which can be communicated to others. The above-mentioned elements are, in my case, of visual and some muscular type. Conventional words or other signs have to be sought for laboriously only in a secondary stage, when the mentioned associative play is sufficiently established and can be reproduced at will.

—Albert Einstein

Dreamstage shows that, with the help of artists, science exhibits need only use the same data and methods as science to achieve excitement, instruction, and even entertainment. We have only scratched the surface of the ways in which artists can help scientists communicate the processes

and findings of their work. As Spanish histologist and Nobel laureate Santiago Ramón y Cajal said, “No matter how exact and minute the verbal description may be, it will always be inferior in clarity to a good illustration.” In turn, science's contribution to art in understanding perception and creativity are as yet wholly unexplored. □



ELENA DE LA VILLA

J. Allan Hobson is professor of psychiatry at HMS and director of the Laboratory of Neurophysiology at Massachusetts Mental Health Center. Since the conclusion of the Dreamstage experiment, which was supported by an educational grant from Hoffmann-La Roche, he has served as chair of the scientific advisory committee that collaborated with museum staff to design the permanent brain exhibit at Boston's Museum of Science.



brain. “Then whose brain is it?” they demanded, inadvertently confronted with death. We tried to balance these unfortunate reactions by providing informative, reassuring briefing sessions for school groups, using the light space as an educational buffer zone.

I'm confident that the public's interest in sleep and dreams will prove to be as enduring as that of science.

A National Historic Monument

by Doris R. Bennett



WHEN PERRY CULVER INVITED me to speak at Alumni Day, at first I felt very honored, but then I thought: "Here we go again." Every five years the reunion of the Class of 1949 becomes a minor media event, as the newspapers once more take note of the anniversary of the graduation of the first HMS class that included women.

As the years speed on, our graduation begins to assume the proportions of an historic event—another HMS milestone—admittedly not in the same league as the discovery of ether or the invention of acute appendicitis. I recently remarked to a medical student that we 12 women who first graduated from HMS would someday be designated a national historic monument, sort of a female Ether Dome. The student was quick

to retort, "That'll be great! Then you'll be able to submit a grant proposal for renovations."

You must admit that any woman who will stand up in front of all these people and admit she graduated from medical school 35 years ago doesn't have the slightest hang-up about her age—unless, of course, like me she was the very first to earn her M.D. at the age of 10. If you believe that, you'll also believe that when we started at HMS in 1945 everyone—teachers, students, and alumni—was absolutely thrilled to have us here. Not so! Though every other medical school in the U.S. had long since gone co-ed, many of the HMS alumni, faculty, and upperclassmen saw in our entry into HMS's hallowed halls a revolutionary change in policy.

There were dire predictions that we would all drop out because of

marriage, motherhood, or sheer lack of intestinal fortitude. Not too many people made it easy for us. Dean Burwell was kind and considerate, but much too busy to be very solicitous. Assistant Dean Hale didn't think Harvard was the place for women, and he had no compunctions about stating his opinion. Those in charge of housing flatly refused to allow us to live in Vanderbilt Hall, which was to be preserved as an inviolate male sanctuary. We did have one staunch

We 12 women who first graduated from Harvard Medical School may someday be designated a landmark, sort of a female Ether Dome.

advocate in the Dean's Office: Ms. Dottie Murphy. Whatever would we have done without her sensible, matter-of-fact, down-to-earth defense of our status?

Our professors were divided in their acceptance of us. Our anatomy professor, Robert Montraville Green—a courtly classics scholar

There were dire predictions that we women would all drop out because of marriage, motherhood, or lack of intestinal fortitude.

whom we would have identified as the epitome of male chauvinism if we had known the term—firmly expressed his opinion that women now, as in the days of the Greeks and Romans, should be kept barefoot and pregnant. In sharp contrast to Dr. Green was a jovial young instructor in lab diagnosis, Perry Culver, who sympathized with us, laughed with us, and taught us well. He made us feel accepted, even welcome, at Harvard. Perry has remained a friend to women in medicine to this day.

OUR MEDICAL EDUCATION WAS INTENSE and exciting. After all, what other institution of medical learning could deal with the basic sciences with the flare of Harvard? Where else would women medical students, on the advice of an anatomy professor, Dr. Weatherford, venture forth where few women had gone before: to the Crawford House in infamous Scollay Square, for the sole purpose of watching the fabulous Sally Keith as she demonstrated hitherto undescribed movements of the pectoral and gluteal muscles? Where else could medical students learn about disease as dramatically as at the esteemed Massachusetts General Hospital?

During our third year, Edie Taylor and I were the only two women in a

dermatology section at MGH. One day in the OPD our instructor told us a patient in a nearby exam room had a primary syphilitic lesion, and he motioned to the group to come see this unusual physical finding. As Edie and I started to enter the room with our classmates, he stopped us, suggesting it would be better if we didn't go in, since the male patient would be embarrassed at being examined by two women.

At that moment, we became charter members of the as-yet-unfounded women's liberation movement. We demanded our rights, since we had paid the same tuition as our classmates. Our instructor, seeing the logic of our argument, had a whispered conversation with the head nurse. Shortly thereafter the nurse invited the two of us to enter the room, cautioning us to be very still. We tiptoed into the room, where we saw the patient stretched out on an exam table, covered from the top of his head to the tip of his toes with a laparotomy sheet: only the primary lesion protruded. As you can well imagine, the plan fell flat, because Edie and I broke up completely and fled from the room laughing.

TODAY THERE ARE MANY MORE WOMEN medical students than in 1948. In fact, 43 percent of those accepted for this September's entering class are female. These women students are accepted as future physicians by everyone, including male dermatology instructors and male patients. In fact, many of the instructors themselves are women; however, not many of the professors are.

Harvard does have a few outstanding women professors and administrators, of whom we are all justifiably proud, but after 35 years of educating women doctors, one would expect more. The reasons for the scarcity of women in positions of prominence in the medical world are many and varied. In my opinion, sex discrimination is *not* high on the list. I'm almost certain that high academic posts are awarded to the candidates with the best credentials, regardless of gender.

The real issue is that fewer women than men achieve the "best credentials." For those few who do, the sky's the limit. For the many who don't, early dreams of Nobel Prizes and endowed professorships are abandoned in favor of less glamorous, but probably fuller and more rewarding, lives. They have chosen to structure their lives around practicing medicine and raising a family.

These lady doctors are not just as good as their male counterparts—they're better! Women are governed by a biological imperative. No matter how willing husbands are to share homemaking and child-rearing, only the women can bear and nurse the children. This ability somehow seems to impart to women the need and desire to nurture, to care for the weak and helpless. What better quality for a good doctor!

Harvard president Derek Bok, in his excellent recent report on the need for a new way to train doctors, cites the New Pathway Project for General Medical Education (the Oliver Wendell Holmes Society) to be implemented at HMS in September 1985. Its goals include a list of attitudes medical schools should impart to students, among them honesty, integrity, dependability, sensitivity, responsibility, and so on—sort of the "apple pie and motherhood" of medicine.

In my opinion, sex discrimination is not high on the list of reasons for the scarcity of women in positions of prominence in the medical world.

As Bok points out, there are additional, less obvious, desirable attitudes: "capacity to be with the sick and suffering and remain open to their needs"; "recognition of one's own limitations"; "recognition of how financial aspects of practice affect self, patients, and society." I maintain that these are the attitudes that are inherent in being a woman doctor who is also a wife and mother.

One of my colleagues, the mother of two teenagers, is a very busy part-time oncologist. This is, of course, a contradiction in terms. There is no such thing as a part-time oncologist. Just as she is always there for her children, so is she always there for her patients—sensitive to the needs of both, responsive with warmth, caring, and generosity to their demands upon her time, knowledge, judgment, her very self.

Another of my colleagues, a pediatrician, cares for her four children and a huge practice, constantly performing, in admirable fashion, two full-time jobs—never sacrificing her children's needs to those of her patients, or vice versa. I could go on for hours with individual stories of great women doctors I have known, but I think I've made my point.

IF ANY OF YOU HAVE TAKEN ANY courses in management, you know that the "buzz words" for a framework for successful management are the seven S's: structure, systems, strategy, shared values or superordinate goals, staff (dealing with people), skills, and style. Although applied to corporate management, they can be applied to almost anything, including the practice of medicine and the academic hierarchy.

Tony Athos, an astute Harvard Business School guru and philosopher, divides the seven S's into a hard triangle of three: structure, strategy, and systems; and a soft square of four: skills, style or sensitivity, staff (dealing with people), and superordinate goals or shared values. He says that the hard triangle embodies the male attributes, which point to the top level of management, while the soft square encompasses the female values, which muddle around

Our patients need physicians with sensitivity, ability to deal with people, and shared values; we women doctors can give them what they need.

in the middle of the organization.

When I first heard this theory, I bristled. But after reflection, I think Tony is right, and what's more, I'm glad. Our patients need and deserve that soft square of skills, sensitivity, dealing with people, and shared values—and we women doctors are the ones who can give them what they need.

Getting back to how much times have changed, at the end of my first year at HMS, when I became the first woman to get married here—and to another HMS student (if you've been paying attention, and if you're good at arithmetic, you'll realize I was married at the age of seven)—there was a minor to-do in the Dean's Office. Should I take my husband's name or not? The decision was made: I became Dr. Bennett, resulting in many years of answering the phone with: "Which Dr. Bennett do you want?"

I'd like to close with thanks to the other Dr. Bennett for his forbearance throughout these many years. After all, it's not so easy being married for 38 years to a potential national historic monument. □

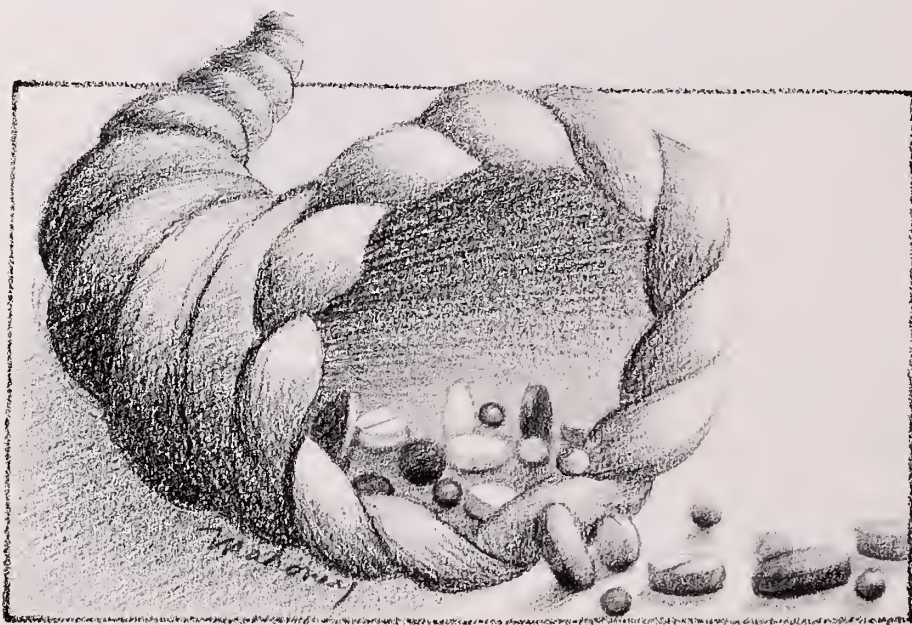


ELENA DE LA VILLE

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The New Nutrition: Boon or Boondoggle?

by Richard S. Rivlin



I WOULD LIKE TO SHARE WITH YOU a recent experience of mine with a patient which illustrates the status of the field of nutrition at present. An executive wanted some nutritional advice because of chronic fatigue. His physical examination and laboratory tests were all entirely normal, but his lifestyle history revealed that he was working long hours, partying at night, eating too much, drinking too much, and not getting any exercise. I said to him, "There is nothing medically wrong with you. It's not surprising that you are tired all the time. You're burning your candle at both its ends."

He replied, "I know I'm burning my candle at both its ends. I came to you for more wax!"

People look to nutrition to give them more wax in their candle, more bounce to the ounce, more air in their tires, and more lead in their pencil—and it is in this area that we

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are particularly unable to fulfill expectations. The sick and the elderly are the groups most vulnerable to such hopes—and those most often victimized, as they spend huge sums of money on pseudovitamins and other questionable and even dangerous health practices.

Some people think nutrition will enable them to live forever. One patient I saw recently had just turned 100. I escorted him out to the waiting room, where I said to the assembled patients, "We've got to wish this gentleman a happy birthday. He's just turned 100." And there was of course a gasp as he walked out on his own steam. One woman sitting there grabbed me by the arm and said, "Are you Dr. Rivlin? Are you taking care of this man? I'm sticking with you!"

TODAY WE SEE THE QUEST FOR "super-nutrition." We have so-called vitamins, such as B-15 (pangamic acid) and B-17 (laetrile), which are not vitamins at all, do no good, and have the potential for doing much harm. If those names sound familiar to you, they should. They are also the names of World War II bombers; and B-15 and B-17 bear no more resemblance to vitamins than bombers do.

We find people submitting a random sample of hair for nutritional analysis, without appreciating that beauty treatments, environmental contaminants, and many other factors make random hair analysis not only insensitive and unreliable, but misleading. If you take a piece of hair from the bottom of the neck, you may be told that there is evidence of deficiencies; if you take hair from

elsewhere on the same individual, you may be told that he or she is poisonous with a particular nutrient. Analysis of random samples of hair is a totally irrational test, used by people striving for that extra edge.

We find people consuming vitamins and minerals in many times their recommended doses; vitamin and mineral toxicity is rapidly becoming a significant clinical problem. In these days when perhaps one-third or more of the elderly are consuming some kind of mineral or vitamin supplement, there is a substantial risk of waste and misuse. Our laboratory (jointly affiliated with Memorial Sloan-Kettering Cancer Center and Cornell University Medical College) recently published a paper describing a study of well-nourished healthy elderly who doubled their dietary intake of vitamin B-2 (riboflavin) with a multivitamin supplement; we found they doubled their urinary excretion of vitamin B2! This dose was very small compared to what is out on the market; a single extra milligram and a half was lost entirely in the urine. Think how wasteful it must be when vitamins are consumed at 100 times their Recommended Dietary Allowance!

IT IS MY VIEW THAT THE WRONG people are taking supplements. The healthy who eat sensibly derive little benefit, and those who need the supplements are not taking them. Alcoholics, for example, rarely take vitamins on any regular basis, yet alcoholism is emerging as the single greatest cause of folate and thiamin deficiency among the elderly in the U.S.—and probably in younger age groups as well.

Others who may need supplements include narcotics abusers who are chronically malnourished, certain individuals with chronic diseases, pregnant women, food faddists, and certain elderly. Recently a whole new medical challenge has emerged: prevention and treatment of malnutrition caused by medications. As physicians, we are all trained to recognize the acute, dramatic side effects of drugs, but seldom the slowly developing malnutrition—such as the zinc

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deficiency that may result from chronic use of a diuretic, or the vitamin A deficiency that may result from chronic use of a laxative, such as mineral oil.

Our laboratory has been concerned with the effects of psychotropic drugs upon vitamin metabolism. We have been able to show that drugs widely used to treat mental illness—including chlorpromazine (Thorazine), imipramine (Tofranil), and amitriptyline (Elavil)—have very clear effects as vitamin antagonists in low doses in experimental animals. Taken over a long period of time, these agents can interfere with riboflavin metabolism. We've also been able to show that doxorubicin (Adriamycin), widely used to treat cancer—perhaps one of the leading anti-cancer agents—also interferes with vitamin metabolism.

In the search for "supernutrition" one must not be deluded into thinking that simply by taking vitamins and minerals in great quantities, one can achieve "super health." Nutrition cannot reverse the aging process, nor give super energy. In many cases, nutrition is only an adjunct to any treatment plan. It is tragic when patients view nutrition as the sole means of prevention and treatment of a disease—particularly when therapeutic methods of proven efficacy, such as

surgery, chemotherapy, or radiation, are discarded for the illusory benefits of a "holistic approach" which uses nutrition exclusively.

HOW CAN WE, AS PHYSICIANS, counter the flood of nutrition nonsense and misinformation which daily greets us? How can we protect others from charlatanism, fraud, and disaster? To some extent the answer lies in education—of ourselves, our patients, and the public at large. Too few physicians have taken the time and effort to get the message across. Too few even have the knowledge to pick up a given supplement, look at it, and advise a patient whether it is a sensible choice. For the most part, nutrition courses in medical school have only recently received the attention they deserve. Some medical schools still do not make the subject a requirement—yet among the questions most commonly asked of physicians, regardless of their specialty, are those about food and nutrition.

There are still only a handful of postgraduate courses available in clinical nutrition, and a relatively limited amount of scientific literature on the subject compared to the flood of misinformation with which we are deluged. I hope the time will come when physicians will be as familiar with the Recommended Dietary Allowances for nutrients as they are with the normal serum electrolyte concentrations—and will understand how to correct deficiencies as knowledgeably.

Clinical nutrition is a defined field which needs status and stature within our profession. Even the term "nutritionist" is confusing; it may refer to a physician, a dietician, a health-food store owner, or a self-styled expert. It is tragic that at present the fields of internal medicine, surgery, and pediatrics do not accept clinical nutrition as an official medical specialty.

It is distressing that certain unaccredited universities offer nutrition degrees and certificates by mail. One can obtain advanced degrees entirely by correspondence courses. Certificates are easily obtainable simply by sending in a check. I know one physician whose dog and cat both received elegant certificates from one

of these organizations after payment of a \$50 fee!

Clearly, a major challenge lies in improving education. Perry Culver did us all a great service in testifying to the House Subcommittee on Nutrition in 1979 on the need to improve education and research. In his testimony he said, "No amount of nutrition in the medical school curriculum will improve the nutritional health of the American public until each and every citizen accepts the responsibility for following good nutritional practices."

As Harvard graduates, we have been taught to search for truth, for *veritas*, in the belief that all problems will ultimately yield to knowledge, and that once answers are known, rational people will automatically accept them. Yet it has been my experience that with respect to matters of health, particularly those that relate to nutrition, people often do not behave rationally. Nutrition is not just a science—it is a religion!

You cannot simply talk someone out of a dietary practice, any more than a casual conversation is likely to turn a Catholic into a Hindu, or a Moslem into a Protestant. We must approach matters of nutrition with utmost delicacy if we are ever going to succeed in persuading people to change their lifestyles. I think we can learn from the cultural anthropologists that approaching matters in a careful, tactful, structured fashion is more effective than frontal assault.

IS THERE A ROLE FOR NUTRITION today that is a boon and not a boondoggle? I think there definitely is, particularly in prevention. There is now evidence that we may be able to lower the prevalence of heart attacks with prevention programs using diet and drugs. We now believe that dietary factors such as sodium and calcium may play an important role in the development of high blood pressure and in its control—which gives us a whole new way to use nutrition in therapy. We are also learning more about the relationship of calcium to the pathogenesis of osteoporosis, which may provide means for prevention of the disease and for re-

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duction of its rate of advance once it has developed.

There are ongoing studies in patients, as well as much basic research, to suggest that key dietary factors—such as vitamin A and its derivatives—may have an important role in the prevention of certain cancers. The possible role of a diet low in fat and high in complex polysaccharides in preventing complications of diabetes is receiving increased emphasis. Reduction of dietary protein may be an effective and practical means of delaying the progression of chronic renal disease, and perhaps of preserving renal function with advancing age.

So, just to skim the high points, there's increasing evidence that heart disease, cancer, kidney disease, diabetes—the important killers in the U.S.—may be related in a very important way to nutrition. Therefore, nutrition holds potential as a means of prevention of these diseases.

It is unlikely that what we eat will lengthen the maximum life span to any significant degree. But we can certainly be realistic in anticipating that nutrition, in combination with other sound health measures, will increase disease-free lifetime, improve the quality of life of older individuals, and delay the onset of specific diseases. Perhaps it is more accurate

for us to think of nutrition as delaying rather than preventing disease.

Recognition of the importance of nutrition has long historical roots. The great 12th-century physician and philosopher Moses Maimonides wrote, "Any disease that can be cured by diet alone should not otherwise be treated." It is our task today to utilize advances in the field appropriately, distinguish between its use and misuse, ensure that the right people receive nutritional supplements, and set a good example in our personal health habits.

It is apparent that I do not have all the answers. The research potential is enormous. Nutrition today is both a boon and a boondoggle. But I have tried to give you some "food for thought," or at least "something to chew on." □



ELINA DE LA VILLA

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Child Health Lessons from Africa

by Charlotte G. Neumann

IT APPEARS TO HAVE BECOME A tradition at Alumni Day to rein in a graduate whose work has carried him or her far from the laboratory, bedside, or office practice. Today I want to share with you lessons in child health from Africa and India now enjoying a renaissance on the American pediatric scene.

My husband and I owe our peripatetic careers to two Harvard professors and a classmate from Harvard School of Public Health. In 1960, as we were completing our M.P.H. studies, the school won a pilot training grant to expose U.S. physicians to health and nutrition problems in developing areas of the world. Thomas H. Weller, Richard Pearson Strong Professor of Tropical Public Health, was the primary investigator. My husband and I were invited to be the first trainees.

Jean Mayer, then professor of nutrition (now president of Tufts University), took us by the hand and led us to Ghana with our one-year-old son in tow. We were first assigned to nutrition survey teams and sent to various field sites in rural Ghana. Then we ran the Princess Marie Louise Hospital for malnourished children in Accra for a brief time. Mayer and our Ghanaian classmate Fred Sai (who became director of medical services and head of nutrition in Ghana) deepened our interest in nutrition, the most obvious and pervasive health problem we encountered.

Our next mentor was Carl Taylor, professor of preventive medicine and public health at Harvard and then



Johns Hopkins, who lured us to rural India for a two-year stay in a Punjabi village. This village was the site of the Rural Health Research Projects, a joint effort of the Indian Council of Medical Research and Johns Hopkins University. My husband and I each ran field studies, he in rural health care and I on the interaction of nutrition and infection.

My other African experiences have included a study on the "Immunologic Responses of Malnourished Children," which brought me back to Ghana while my husband was involved with a comprehensive health and

family planning program there, and work in Kenya on the large problem of nutrition, infection, and immunization in intrauterine malnourished infants. Currently I am involved in a long-term field study in rural Kenya, a collaborative effort of the universities of Nairobi and California. We are examining the effects of moderate protein-energy malnutrition (far more prevalent than severe malnutrition) on a range of human functional areas.

AFRICA IS BESET BY FORCES WITH overwhelming negative impacts on health. Unstable governments and political-social upheavals have resulted in the largest chronic refugee problems in the world. Undercultivation of the land; neglect of agriculture in favor of flashy modernization schemes; complete vulnerability in the wake of natural disasters such as flood, drought, and erosion; and skyrocketing oil and fertilizer prices all lead to periodic food shortages and famine. Rapid population growth has outstripped the ability of the land to support the people. Infant mortality is well over 100 deaths per 1,000 live births; the second-year death rate is over 40 times that of the U.S.; and the interaction of malnutrition and infection claims the lives of 40 percent of the children by age five. Maternal mortality also far exceeds that of the U.S.

Despite this gloomy picture, Africa offers some clear lessons in child health that we are beginning to appreciate, adopt, and even institutionalize in American pediatrics. The most basic and profound lesson is the central and preeminent role of "biological breast-feeding." Because of the constant physical closeness of the infant and mother, the mother can respond immediately to the infant's needs. There is no need for nipple shields, suction devices, or timers. Psychological blocks and lack of maternal confidence are rare, as are poor letdown reflexes, blocked ducts, and insufficient milk syndrome. There are ample role models and many expert teachers available to the new mother.

In many parts of rural Africa, lactation failure is the infant's death

warrant. Even where a substitute food is available, were it not for the nutritional and anti-infective properties of breast milk, the infant would surely perish in the first year of life. In African cities, where breast-feeding is being abandoned, infant deaths from marasmus and diarrhea are on the rise.

In the first few postpartum days, customs and taboos abound, most of which tend to isolate the mother and her new infant from visiting relatives and friends. The mother is likely to be plied with nourishing food and drink. Often the midwife takes over the household chores for the first few days after she has helped deliver the baby. Thus the mother is able to get used to her infant, and initiate breast-feeding.

In contrast, consider our hospitals' lack of universal rooming-in—the separation of the infant and mother before good lactation is established. There is a high breast-feeding dropout rate in this country in the week after discharge. Knowledge on the part of our profession on how to implement and maintain breast-feeding is often sadly wanting.

Although not perfect, the contraceptive effect of demand breast-feeding results in child spacing with intervals of about 18 to 24 months. It will be years before modern contraceptive methods will be readily available and accepted by rural African women.

Multiple benefits of breast-feeding, including its psychologic benefits and nutritional, anti-allergic, and anti-infective properties, are now being documented in the U.S. Unfortunately, breast-feeding in this country is least practiced by the poorest segments of the population, who stand to benefit the most from it.

DESPITE THE HIGH PERINATAL, NEONATAL, and maternal mortality rates in Africa, there are also lessons to be gleaned from some of its child-birth practices. During my obstetrical and newborn rotations as a medical student and resident at a Harvard teaching hospital, the twilight sleep of scopolamine, demerol, and atropine emotionally and volitionally absented women from the whole labor

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and delivery process. I recall the isolating, impersonal labor room atmosphere. The disease model was implied for pregnancy, labor, and delivery. Depressed neonates were not uncommon. Fortunately, obstetrics in this country is now increasing opportunities for natural childbirth, alternate birthing arrangements, and early infant/maternal contact.

Let me now share some observations I made at a large maternity hospital and some rural health centers in Kenya. In a Nairobi hospital averaging an astounding 80 deliveries a day, often with two women in labor in one bed, trained midwives presided over the labor and delivery room under the general supervision of a physician. The midwives found time, despite the heavy work load, to interact constantly with the women in labor—talking, cajoling, coaxing, instructing the mother when to exert effort and when to relax. The midwife, it seemed, practically talked the baby through the birth canal.

The labor room atmosphere was calm, with a low murmur of midwives talking to the mothers, and only a rare outcry of pain. Episiotomies were the exception rather than the rule: perineal relaxation was attained by the skilled hands of the midwife. Forceps and local anesthetics were seldom used. (Several years ago, a study in the *New England Journal of Medicine* based on a Guatemalan

experience showed that the presence of a supportive labor-room companion resulted in a lower incidence of problems, and improved pregnancy outcome.)

In the maternity hospital in Kenya, the newborn infants were alert, crying, and looking about. The umbilical cord was clamped and cut late to allow extra circulating hemoglobin to enter the infant. Some 40 to 60 minutes post delivery, women could be seen in small groups, weary but smiling, walking slowly to the ward carrying their infants. The newborns appeared wide awake, heads up, seeming to take it all in. Mother and infant shared a bed with a hook-on crib arrangement and were left undisturbed to get to know each other and work out breast-feeding.

An innovative incubator for infants weighing from two to four pounds was first reported from Central America, and more recently from Africa. This natural incubator, the epitome of appropriate technology, consists of "packing" or wrapping the infant against the mother's chest. The infant is supplied warmth, stimulation by the mother's voice and movements, contact with the mother's heartbeat, and availability of the mother for nursing. This technique holds great promise where nursery facilities are in short supply and low-birth-weight infants are placed two to three to an incubator, leading to high cross-infection rates.

In line with this human incubator, let me remind you of the "mammy" cloth that supports the infant against the mother for most of the first year. This practice is associated with a low incidence of congenitally dislocated hips, prolonged physical contact and stimulation for the infant, and little crying. In the U.S., a vast array of such infant carriers are now available in infant and camping-goods stores.

ATHIRD MAJOR LESSON IS THE important role of the mother as nurse for a hospitalized infant or child. I remember from my residency one infant who was failing to thrive. The infant had been hospitalized many times for a congenital anomaly of the

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gastrointestinal tract. The child fed poorly and seemed chronically upset and distressed. The head nurse noted that the mother was about the only person who could quiet the infant and get it to eat and drink. As a last resort, the mother was invited to move into the child's room to take over the feeding and routine nurses' duties. Lo and behold, the child started to feed more easily, calm down, and gain weight. The significance of this event did not escape the late Charles Janeway, then chairman of pediatrics, who subsequently organized a grand rounds on "Mother-nursing for the Hospitalized Child."

The majority of African hospitals and wards for infants and young children require that the mother be admitted with the child. The mother shares the child's bed or sleeps on a mat on the floor. The support of the mother's extended family makes it possible for her to be away from her other responsibilities. Nurses are in short supply, so mothers take over the routine care, including bathing the child, washing clothing and sheets, and feeding. For the nursing infant, the mother continues to supply adequate nutrition and infection protection. In the case of the severely malnourished child, the mother learns to prepare nourishing food from locally available ingredients, and, most important, sees her child improving using only food as treatment—not magic or Western medicine.

The hospital serves as an excellent vehicle for parent education. For reasons of economy, and in recognition of the mother's role in the child's care and emotional support, "care-by-mother units" have been springing up here and there in this country, despite objections by, and negative attitudes from, hospital administration and nursing.

There are many other major and minor health-care lessons to be learned from Africa, particularly in delivery of services. For example, hard-to-reach populations receive multiple antigen immunizations by jet gun in two to three visits, as opposed to the six visits required for immunizations according to the recommendations of the American Academy of Pediatrics. Other innovations include



mobile units, educating patients to treat themselves with such simple measures as oral rehydration early in the course of diarrhea, and home-based medical records and road-to-health growth charts. Think how often the patient's record is not available in the emergency room or clinic in some of our American hospitals. Africa's primary-care settings integrate preventive with curative child health services, and these with maternal and family-planning services.

I am compelled to share with you one last lesson. As a camp physician on a ranch in northern California one summer, I was faced one evening with a crisis: Betsy Sue, the camp's pet cow, had been found in a deep coma in the meadow. With the help of an old veterinary Merck manual, the barn counselor and I made the diagnosis of milk fever: a combination of a too vigorous suckling calf and overenthusiastic milking by the city-bred campers. Betsy Sue suffered from acute calcium depletion. The Merck manual prescribed intravenous calcium given cautiously until recovery, lest cardiac standstill ensue.

After rummaging in the barn, we found a large, dusty bottle of calcium solution and some rubber tubing. With an 18-gauge needle we fashioned an I.V. set-up. But where to put the needle? Aha! Having watched the Masai bleed their cattle from a neck vein for a blood-milk meal, I did as

they did and went straight for the jugular! After a slow drip of calcium for 12 minutes, Betsy Sue snorted, swished her tail in our faces, and, pushing hard against the many restraining hands, rose up proudly onto her wobbly legs and smartly trotted away.

Last year in his Alumni Day speech, fellow traveler Stanley Bohrer '58 quoted a particularly apt Nigerian proverb: "When the right hand washes the left, the right hand is also cleansed." Truly, international health is a two-way street. □

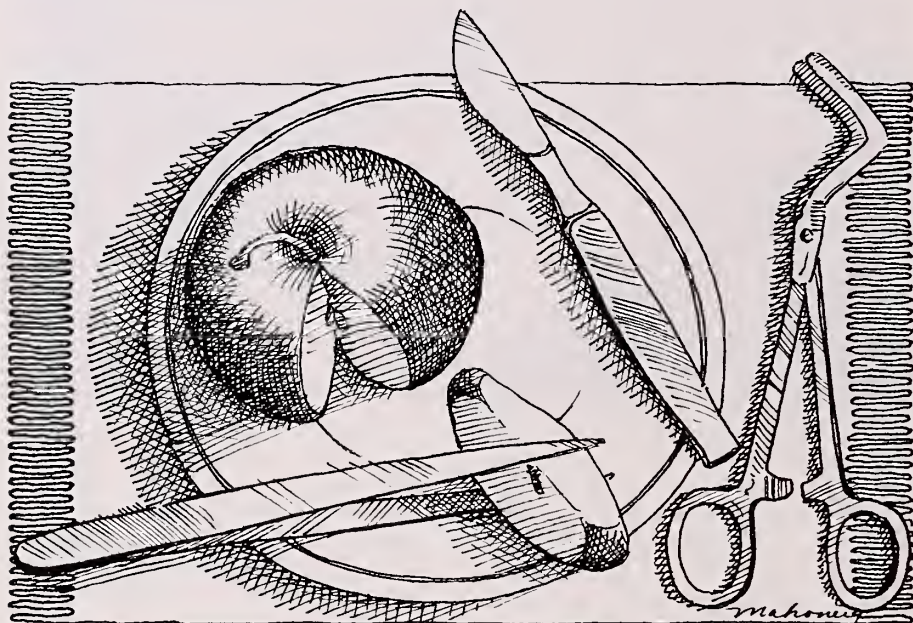


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PHOTO BY L. LAVELLE

Health as Metaphor

by Irwin H. Rosenberg



THE TITLE OF MY TALK TODAY parodies that of an interesting book by Susan Sontag, *Illness as Metaphor*. Sontag discusses tuberculosis as the metaphoric illness of the 19th century, consumption expressing both romantic dissipation and the apparently untreatable social ills of the industrializing and urbanizing West. As you might expect, the fearful metaphor of the first three quarters of the 20th century has been cancer, which similarly looms as a threat to all from an unknown source—and also connotes, for many of us, the victimization and violence of our time.

I would argue that the metaphor for the pervasive and sometimes obsessive concern with self of the last quarter of this century is health. We are more concerned with health than perhaps at any time in history, yet our life expectancy is greater than ever before (with the possible exception of the age of Methuselah). Moreover, our society has begun to define health as something more than simply

an absence of illness—as a state of wholeness (thus “holistic”). This cultural notion, resonant of Eastern philosophy, is prevalent in pre-industrial societies worldwide.

I was intimately exposed to such a culture shortly after my training in internal medicine at Massachusetts General Hospital, when I requested an overseas assignment as part of my NIH fellowship. I ended up in East Pakistan, now Bangladesh, directing a nutrition survey on the rather flimsy strength of a very short course in survey techniques I’d taken in the U.S. Public Health Service. That survey carried me to villages and hamlets throughout East Bengal. I even learned enough Bengalese to take a rudimentary history.

I learned in East Pakistan that the interaction of malnutrition and infection accounts for the great majority of illness in the world—a somewhat different perspective from that in my HMS and MGH internal medicine training. That experience fostered my persisting interest in human

nutrition. And since one of my first major encounters in that culture was in the then very new Cholera Research Laboratory in Dacca, I became persuaded to train later in both gastroenterology and nutrition. I was greatly aided and supported in that effort by Charlie Davidson, Bill Castle, and Jim Jandl at the Thorndike Memorial Laboratory at Boston City Hospital.

AFTER NEARLY TWO YEARS IN THE Bengali culture, I was impressed with the importance of understanding the cultural context of health and disease. For instance, one explanation for East Pakistan’s pervasive food scarcity is the high population density relative to its agricultural productivity—over 80 million in a province the size of Wisconsin. In addition, however, strongly held cultural attitudes—about foods to use and avoid during pregnancy, for child feeding, and in the presence of various diseases and symptoms—contribute to dietary imbalance, particularly in infants. Some of these attitudes stem from the ancient Ayurvedic system of philosophy and medicine.

My exposure to the Bengalese way of life also helped me understand how a culture can juggle and balance practices derived from ancient folk medicine with those from Western, “scientific,” rational medicine. (Subsequently, through our nutrition program at University of Chicago, which has strong social science as well as biological science elements, my colleagues in anthropology have further introduced me to non-Western attitudes about food and health.)

I’D LIKE TO SHARE A FEW OBSERVATIONS in Bengali ethnology, and then return to some of the ways these lessons may provide insight into the current mix of health concerns in our culture. Like tuberculosis in 19th-century Europe, diarrhea (especially cholera), smallpox, and malnutrition have been the endemic diseases of the Ganges Delta. They too have become the subjects of literature, lore, and cult in response to the fear and mystery surrounding them. Smallpox was eradicated in East Pakistan

only in the last decade, and cholera is still endemic there.

My anthropologist colleague Ralph Nicholas has studied folk attitudes about cholera and smallpox with special attention to two female goddesses, one Moslem and the other Hindu. Both must be appeased if these dread diseases are to be warded off. The cholera goddess is Olabibi, a highly unorthodox Moslem deity. According to the legend portrayed in dance drama, Olabibi is the product of impregnation of a chaste Moslem maid by the invisible Hindu deity Narayan. The cult of Olabibi coexists with the growing acceptance of oral rehydration therapy as a way of reversing the potentially lethal dehydration in cholera.

The Hindu goddess to be appeased by food and offerings for prevention of smallpox is Sitala (pronounced Shitala)—which almost sounds like a better name for the cholera goddess. With the disappearance of smallpox, Sitala has taken on new functions, and is still the object of considerable attention and ritual. Perhaps the best parallel in our culture is the continuing success of the March of Dimes and Easter Seals after the control of polio by immunization and the lessening of tuberculosis.

Possibly even more relevant to contemporary concerns is the non-Western classification of foods. Most of you are familiar with the Hippocratic or Ayurvedic concepts of hot and cold imbalances expressed as disease. A local practitioner may treat a hot illness, such as fever, with cold foods, including vegetables and rice—and a cold illness with hot foods. Many specific foods are proscribed during pregnancy or lactation.

We too have a folk or counter-culture which, though practiced enthusiastically by only a small percentage of the population, has an enormous influence. This culture talks of "health," "natural," and "junk" foods, and attributes special benefits and curses to various categories with little relevance to their intrinsic nutritional content.

If we think that this concern with health mania, and particularly exercise mania, is only contemporary, we need only look back at a passage

We have a folk culture that attributes benefits and curses to "health," "natural," and "junk" foods with little relevance to nutritional content.

Stephen Leacock, a Canadian humorist, wrote in 1913:

Twenty years ago I knew a man named Jiggins who had the health habit. He used to take a cold plunge every morning. He said it opened his pores. After that, he took a hot sponge. He said it closed his pores. He got so he could open and shut his pores at will. In the evenings in his room he used to lift iron bars and cannon balls, heave dumbbells, and haul himself up to the ceiling with his teeth. You could hear the thumps for half a mile. He liked it. He spent half the night slinging himself around his room. He said it made his brain clear. When he got his brain perfectly clear, he went to bed and slept. As soon as he awoke, he began clearing it again. Jiggins is dead. He was, of course, a pioneer, but the fact that he dumbbelled himself to death at an early age does not prevent a whole generation of young men [and women] from following in his path. They are ridden by the health mania.

IN OUR ALTERNATIVE HEALTH CULTURE, vitamins—which are taken by 43 percent of the American population—are not seen merely as chemical substances with special metabolic and nutritional functions, but often serve almost as amulets to ward off disease and aging. A recent FDA survey found one category of vitamin user in this country that consumes an average of 14 different preparations daily. The president of one of the most successful health food mar-

keting companies recently described to me the remarkable upswing in sales of his products when he stopped selling vitamin supplements in pharmacies, which have the taint of disease, and shifted to supermarkets to strengthen the aura of self-help health promotion.

Like the Bengalis', our vitamin and health-food-oriented subculture picks and chooses a mix of indigenous and Western scientific attitudes toward health and medicine. They share rituals, enemies, and fears; ours lists pollution, contamination, processing, and white flour among its enemies. They even share the existence of temples of gathering and incantation which supply information from self-educated and self-appointed folk practitioners. In our case such places are called health-food stores.

We physicians must take this phenomenon utterly seriously. Scratch the surface of a devotee of self-help medicine—with all the attendant natural water, natural foods, and organic vegetables—and you are likely to find a well-educated individual of upper-middle income who has a healthy suspicion about the way medicine is practiced, often based on some unpleasant experiences. She (it is most often a she) feels that doctors don't give much of a damn, or don't know much, about diet, nutrition, and preventive pathways to health, which she sees as rational alternatives to radical surgery for cancer, bypass surgery for heart disease, and transplantation for the failing liver.

WE IN MEDICINE MUST LISTEN TO the voice of this alternate health culture, and reestablish our credentials as advocates of disease prevention and health promotion—including proper nutrition. At the same time, we must insist that there is a scientific method, and that it is possible to define health in terms that permit the testing and evaluation of diets or exercise programs.

I am reminded, in mentioning our need for appropriate levels of skepticism and advocacy, of a story about the great philosopher Bertrand Russell, for whom skepticism was something of an article of faith. A woman

once asked Russell what he would say about his lifelong agnosticism when he met the Lord. "Why mad-am," Russell replied, "I would say, 'Lord, why did you make the evidence for your existence so elusive?'"

As we spend more and more for our own individual health promotion in these waning years of the 20th century—with special foods, supplements, running shoes, exercycles, spas—we become less concerned with what we as a society need to do in public health and disease prevention. Recently I had the pleasure of chairing a public policy symposium at the American Society for Clinical Nutrition meeting at which our classmate David Rush spoke. He described his experiences in directing the scientific evaluation of the Women, Infants and Children (WIC) food assistance program here in the U.S.

I cannot evaluate a multibillion-dollar program of this kind, which is so politically charged. But I am convinced by David's lessons, and by others, that programs for health promotion in this society must focus on prevention of low birth weight, infant mortality, growth retardation, and their effects on health. We must more effectively harness the health metaphor and translate the self-help culture's concern for individual health into improved health for the whole society. □



Irwin Rosenberg '59 is professor of medicine and director of the Clinical Nutrition Research Center at the University of Chicago.

ELENA DE LA VILLE

Five Years Later

by Farrokh Saidi



LITTLE DID I KNOW SOME 30 years ago that one day I would be addressing you on Alumni Day, invited by my classmates. I acknowledge the honor, and pledge that for the next 30 years I shall be bound to you in friendship and affection. Ours is a relationship that may always defy description, but can only grow stronger with time.

You no doubt wish me to say something about my experiences, and what has transpired these past five years. I could simply report that the revolution back home in Iran is thriving, and that I continue to surprise myself at my own power of survival. I could present a narrative of life in a revolution-stricken and war-torn land. I might even embellish my story with some gripping tales, leaving out the hyperbole customary to the media. In the end, however, I would not know whether I would be grandiloquently boasting or discontentedly bemoaning my lot. And I wish to do neither. Instead I wish to tell you what I, as an innocent yet deeply affected

physician on the scene, have learned from the experience.

Revolutions, I have learned, are grave, grim, yet fascinating sociopolitical upheavals with uniform and predictable phases in a remarkably distinct order. Consulting history books and reading up on the French, the Russian, and even the American revolutions, I've been surprised to discover how closely other revolutions resemble ours—not unlike a patient going through a serious though well-recognized illness.

There is first a slow prodromal phase, culminating in an unexpected collapse of the established order. Next comes a short period of false relief that all is well, followed by a protracted phase of tension—colorfully labeled by the French revolutionaries as the phase of terror and virtue. After an indeterminate time there is a defervescence, something called a thermidor. Eventually the patient makes full recovery, and usually comes out of the crisis stronger than before.

It would be presumptuous on my part to champion any one cause or political line. When the issue concerns the fate of one's native country, it is, I find, anachronistic to rely on a single therapeutic regimen. One's love for one's country is blind and blinding. And never does one feel so emotionally involved as when one sees one's homeland in turmoil, violated and suffering.

To the extent that I saw what went on at home during the long bonanza years preceding the explosion, and as I am still there the day after, I think I know *what* happened to us. But the *why* of it has remained enigmatic. Invariably I have found myself carried back intellectually and emotionally to a colorful historic past, a beautiful mosaic to look at, but not an easy one to unravel.

LEAVING BEHIND THE WHAT AND the why, I would like to dwell on one question: how should a physician face such a massive political upheaval as a revolution?

I well remember Francis Moore's lucid lectures that all surgical operations can be looked upon as forms of stress, each evoking a proportional adaptive response on an ascending scale—from a minor biopsy procedure to a transthoracic esophagogastricectomy. I propose that something similar holds true for socio-political strains. I do not have in mind such calamities as not getting your research grant funded. I mean those once-in-a-century disasters that disrupt the lives of millions and change the course of history.

What are some of the lessons I have learned from passing through such upheaval? And what can I convey to you, my colleagues-in-arms, that might be of some possible benefit should you ever—heaven forbid—be caught in a similar high-grade disaster?

Disaster means something gone wrong with your stars—something beyond your volition. Does it help to look at your horoscope once in a while, at least to fasten your seat belt? Predictions are difficult. What makes such games particularly unprofitable is that any predictable major social

event has a way of revealing itself to those whose interests lie in stalling or diverting it.

There are always a few who deftly manage to remove themselves and their riches to more secure places just in the nick of time. But I doubt if these people are spared the psychological trauma. My first lesson was that no lordly position, no material wealth, and no degree of gumption can really save one from the apocalypse. Of course, an inscrutable Oriental like me, coming from the land of the great sophy, should have known it all along. But wisdom is what you have *after* you have passed through the mill.

Some think of departure after the disaster has struck, assuming there is time. The temptation to cut one's roots and seek more peaceful pastures can be overwhelming. But it is at these times that your beautiful home landscape looks so sad and forlorn—and then it strikes you that there are people around who need and trust you.

THERE ARE TWO CIRCUMSTANCES in which I would strongly recommend trying the exit route. The first is if you have a weak stomach. Proprietary drugs have a way of disappearing fast in such times—just when your ulcer starts acting up. The other is if you had been part of the economic or political aristocracy. The whole pathophysiology of a revolution, to my mind, is a mass cellular and humoral immune reaction against real or perceived arrogance and conceit, embodied in the term "aristocracy."

However, if you are an aristocrat of the intellect, as all Harvard men and women are supposed to be, I advise you to stick around and watch a unique drama unfold before your very eyes. You are bound to witness carefully cultivated composites collapse under the strain, while magnificent courage rises to the surface from quarters least expected. The full spectrum of human emotion in all its splendor or ugliness is spread out before you.

Should you join the upheaval? The temptation to see your pet social

or political theories put to practical test may be very powerful. The urge to catapult yourself into social, political, and perhaps even financial prominence may be very great. However, I warn those few who cannot resist the siren call of political power that all the rigorous methodology you learned in medical school will fail you. There is no real truth and objectivity in politics; it is a bottomless if not heartless abyss of pure subjectivity.

My answer is that physicians should categorically not get involved in political upheavals, because the wheel of fortune in such situations turns too fast for a good grip. Medicine is too jealous a mistress to permit a physician to devote much attention to political affairs. She might not even take you back once the revolutionary fires are out.

If one is not to run away unless really necessary, and one is not to join, just how does one make the required adjustment? I have no ready remedy besides trusting luck and taking a good dose of *aequanimitas*. Psychiatrist George Vaillant gives a number of options for coping with stress, one of which is the right type of humor. Of all the American jokes I took home with me some 25 years ago, I liked best the one about the cowboy whose chest had been pierced by an Indian arrow. When asked if it hurt, he answered: "Only when I laugh."

I have often wondered why the world is now so full of tension, suffering, and man-made disasters. I confess that my *weltanschauung* is simplistic. Though little in my education has prepared me to analyze the world political situation, I've realized that those specifically trained in the art and science of politics are no better prepared.

I have little doubt that almost any one of you placed in my situation would feel and do *exactly* as I have. This predictable unity of thought and action I attribute to our shared medical education and its two most valuable ingredients: objectivity and compassion. Perhaps those entrusted with governing should also be required to go to medical school.

As our late Fuller Albright, the renowned endocrinologist, so aptly

put it, doctors are like eggs: there are good doctors and there are bad doctors, but there can never be any poor doctors. The world needs only good statesmen and good politicians, never poor ones.

When something goes wrong in a clinical situation, all concerned actively step in to identify and correct the error. Not so in politics. Those most responsible for the catastrophe refuse to be identified with it. Some in fact write books afterwards to vindicate themselves.

PEOPLE IN THE SO-CALLED DEVELOPING countries of the world have a great need for food, shelter, security, health, and education. We all know of these needs, but there is another I've discovered—one not talked about at all. I did not know its power until the revolution back home broke out. It can be called pride, obstinacy, insolence, self-assertion, or, simply, human dignity. The label does not really matter. At some point in any nation's life a deep and universal human urge comes to the surface—as yours did some 200 years ago—perhaps best called an identity crisis. It is a powerful force indeed, one that doctors are aware of in the human psyche. But statesmen, particularly in the West, are disturbingly oblivious to the basic need for human dignity in the masses of the East.

It is an unwritten law in medicine that *all* those in need of medical care shall receive what can be given. Not so in politics, specifically in international politics, where the unwritten law is that whatever can be done by the strong to the weak is justified under "protection of self-interest."

Can it really be true that a fundamental flaw in human nature, something chromosomal, makes politics and morality immiscible? The strong, we are told, are entitled to exert their strength, and the weak are doomed to extinction anyway—a law of nature that ensures progress through competition. Yet medicine has accepted a morality and an ethical code from the very beginning, and its progress has not been at all hampered.

My polemics can be brushed aside

with the notion that this is a subject for the United Nations. But then your country is considering, unfortunately, pulling out of UNESCO, the educational arm of the U.N. And not too long ago we read in the papers that the U.S. representative at the World Health Organization was told to cast the only negative vote on a resolution to restrict commercial companies from endangering the health of the poor in underdeveloped countries through misguiding sales tactics. I later learned, to my tremendous relief, that two top U.S. health officials involved in this issue resigned in protest. I could then go on telling my students, residents, and colleagues that American medicine is not only the most advanced scientifically—which they knew anyway—but that it remains moral, something they would very much like to go on believing.

When I was a student at HMS three decades ago, I took for granted all that was said about the art and science of medicine—it all sounded so obvious and hardly worth talking about. It came as a jolt when I returned home to find that my attitudes about medical ethics were not necessarily shared by the establishment, and sometimes not even by my American-trained colleagues. The science part of Western medicine can be readily exported anywhere, anytime. But the art of medicine is an altogether different matter.

This is a crucial time in the history of medical practice in Iran. We are at a crossroad, and I pray we will take the principled and moral route from here on. I think that the difficult but welcome final revolutionary phase of the cultural anabolism and social reconstruction is just around the corner. For us it is a time not only for gathering the pieces, but also a period of reflection and reorientation.

Ominous rumblings about American medical practice are reaching our shores. We are baffled at times by your current difficulties—your seemingly insoluble financial and administrative problems, the specter of litigation—shifting medicine to the defensive or perhaps even to combat position. We don't know what to make of these horror stories. It looks as if this time the media have been dis-

torting facts over here for us over there.

In sorting out its sociomedical problems, America may decide to forgo its unparalleled magnanimity in extending medical concepts and methodology abroad. But I hope that restrictions placed on the science part of medicine will not be placed on the art as well. That would indeed be disastrous, for the art of medicine, its humane basis of practice, is neither endogenous nor indigenous to these shores. It is the rich cultural heritage of many lands, given to you for safekeeping, but not for locking away. The walls of the buildings surrounding us today are adorned with Hippocratic aphorisms of astonishing and invigorating relevance. The worldwide diffusion of such riches should never be restricted by local expediencies.

You and I and so many others here at HMS have been most fortunate in having learned that man's ultimate salvation can rest in following medicine's twin aim of objectivity and compassion. □



Farrokh Saidi '54 is in private practice of general and pediatric surgery in Teheran.



Undersea Photographs

by S. Harold Reuter

Since he became interested in diving at the age of 33, S. Harold Reuter '59 has become an authority on diving medicine and underwater photography. As physician, he is the author of *Scuba Diving First Aid and Emergency Quick Reference Charts*, and devised the widely used *Reuter No Calculation Simplified Diving Table*. As photographer, he has received well over 100 national and international awards for his underwater photographs, and has authored a booklet,

The Problems and Techniques of Underwater Photographs.

Underwater photography, Reuter notes, is "a continuing challenge because of the phenomena of light. There is a selective absorption of the color spectrum as light passes through water. My first underwater shots were poor; most had a blue-green hue. I began using flashbulbs, which brought out all the brilliant colors the eye perceives. Other problems to be mastered were light refraction.



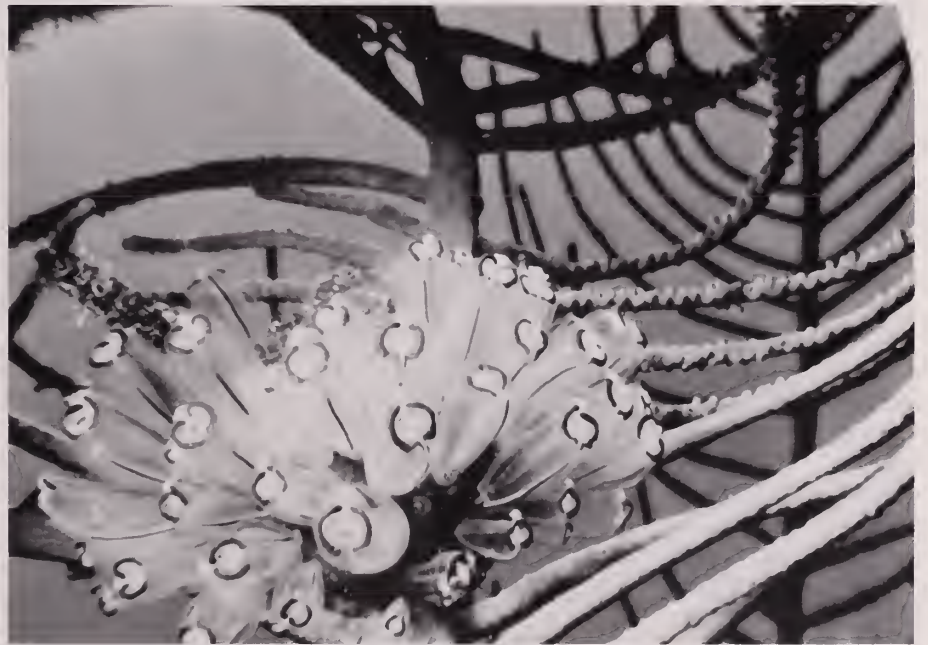
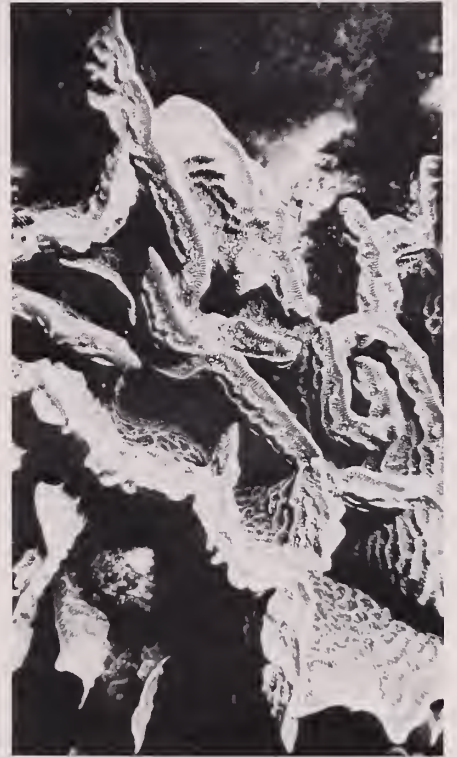
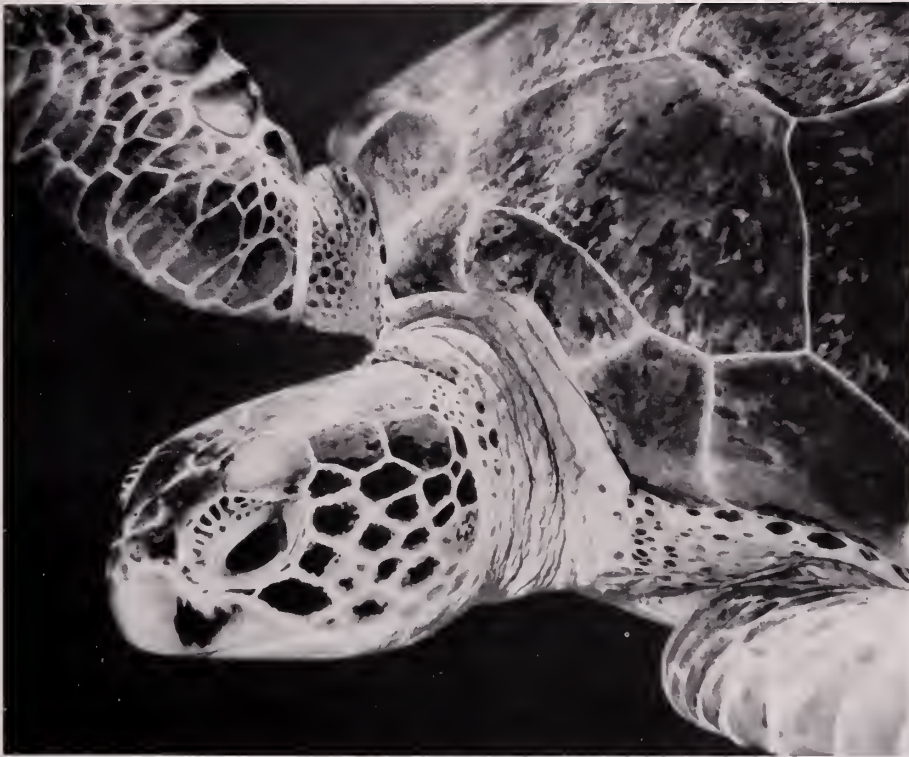
tion in water and loss of intensity from dissolved and particulate matter. At best, underwater photography can be compared to taking pictures on a very hazy day."

Reuter has written that on dives he feels he is "floating in the inner-space of another world, a modern intruder in an ancient place. . . . It is difficult to convey to my land-locked friends the absolute awe I feel each time I descend into the underwater." With his photographs, he has perhaps transcended that difficulty.

To include his work here, the *HMAB* made a selection of Reuter's color slides, and transferred them to black and white.

Reuter is associate professor in the Department of Otolaryngology at Baylor College of Medicine and University of Texas Medical School at Houston, and medical advisor for the National YMCA Scuba Program. □





REUNION REPORTS

One of Perry Culver's last requests to the HMAB staff as he retired as director of alumni relations was that we identify alumni under their class reunion photos. A simple request—or so we thought.

After sending out copies of the photos, we discovered how difficult it is for alumni—even class presidents and reunion chairs—to recognize classmates and their spouses. One reunion chair, who shall remain nameless, confessed to recognizing only one classmate in the photo!

Others, including Tom Warthin and Arthur Pier, made valiant efforts, breaking out the magnifying glass and making many long-distance phone calls.

Eventually, names were matched to faces to the best of everyone's ability, though a few remain a mystery. After all, as Arthur Pier said wistfully, "People change in 45 years."

Herewith, the reunion reports and the photos. Our apologies for any inaccuracies or omissions.

55th Reunion

Although I was somewhat reluctant last winter to encourage my classmates to interrupt their springtime chores to return to Boston for the 55th anniversary of our graduation from HMS, I am awfully glad now that we decided to have a reunion.

Our celebration was limited to an



Top row: Helena Thorp, Edward Thorp, George Humphreys, Ernest Bright, Katherine Maggio, Vincent Maggio. Second row: Albert Rosenberg, Elma Rosenberg, Morton Arnold, Nels Hill, Abbie Courtright, Lazarre Courtright. Seated: David Hurwitz, Pearl Hurwitz, Sylvester Kelley, Hope Kelley, John Adams, Ruby Gilman, Ralph Gilman.

informal dinner at the Harvard Club. Rather than invite an erudite speaker to address our group, I preferred to try to make this a more intimate gathering where each of those in attendance would be encouraged to say a few words about anything that might interest him. In this way we got 26 outstanding speakers.

There was a tremendous variety of subjects brought up, and each speaker seemed to reveal a facet of his character which many of us never had suspected before. With his humorous description of a family cruise to the North Cape on the QE II, Vin Maggio set a lofty example for us. Now that he has given up his heavy teaching responsibilities, George Humphreys seems to have discovered the secret of perpetual youth. As he told us about his retirement to the old family farm in Vermont and his daily routine of raising sheep and various crops, he looked and behaved 30 years younger than his probable age. Al Rosenberg held us spell-bound as he described his recent altercation with the administrator of one of his hospitals. Al is not the easygoing, complacent individual I previously had envisioned. Dave Hurwitz was too modest to say much about the reasons an amphitheatre at Mt. Auburn Hospital recently was dedicated in his honor. David and Pearl concluded their remarks with the wish that we might have a clambake at their home in Falmouth on Cape Cod in the near future.

In addition to those mentioned above and those in the photo, our group included John Adams's daughter Joan, Ruby Arnold, Elizabeth Bright, Bob Goodwin, John Rhodes, and Jack and Leslie White—totaling 26. Tom Dixon was obliged to cancel his reservation because of his poor eyesight. Joe Evans could not make it because of a prior commitment with IPPNW (International Physicians for the Prevention of Nuclear War) to attend their meeting in Helsinki as the representative from Washington. Morris Bowie could not get away from Swarthmore at graduation time.

Our indefatigable secretary, John Adams, presented the necrology report. Of the 132 men in our class at graduation, 68 have died. Although Elmer Gillespie has been reluctant to answer his mail, he has been included among the 64 of us still alive.

In a brief report of this kind it is impossible to comment upon all the anecdotes, words of wisdom, and honors won by our classmates. Suffice it to say that this opportunity to become better acquainted with men whom we thought we had known for almost 60 years, and the opportunity to learn from the experiences of others, have been rewarding.

We all felt very much indebted to Ralph Travis at the Alumni Office for his help in making our meeting a success.

—Sylvester B. Kelley

50th Reunion

Forty-four of our 80 surviving classmates, plus three gracious widows and over 40 wives and guests, returned to celebrate our 50th reunion. It was wonderful to see how active and happy our class has continued to be.

In keeping with our scholarly interests, the initial gathering was a reception and dinner in Countway Library following the scientific symposia. Afterwards Daniel Federman, dean for students and alumni, brought us up to date on the state of the school, and Richard Wolfe, Garland Librarian, spoke of the archival wealth of the Oliver Wendell Holmes Collection and about the library in general. Short historical, investigative, and humorous talks by White, Rutstein, and Graham sent us into the night in the best of spirits.

The heat wave steamed in on Alumni Day, but many of us were true disciples of Hippocrates and gathered under the breezy shade of a large olive tree in the Quadrangle, where we could hear the speeches and discuss them without disturbing others. It was a good morning,

and in the alumni business portion, we learned that our class had topped the five-year totals in giving to the school. The inspiration of our years here, 50 and more ago, and the magnificent help of Carl Walter '32, chairman of the Alumni Fund, brought to fruition this winning



Richard Warren, Kathleen Warren, Fiorindo Simeone



Top row: Julie Rhinelander, Frederic Rhinelander, Smith Philips, Elizabeth Philips, Dexter Elsemore, Newton Scatchard, Betsy Scatchard. Fifth row: Daniel Hardenbergh, Betty Jane Hardenbergh, Marie Alexander, Robert Stone, Horace Thomas, Bebe Hartman, Frederick Hartman, Sherwin Staples, Sydney Stillman. Fourth row: Robert Young, Percy Jennings, Ellsworth Tracy, Peggy Clark, Robert Clark, Roger Mitchell, Virginia Mitchell, Eric Wollaeger, Aage Nielsen. Third row: Ruth Young, Ruth Tracy, Marianne Heffner, George Heffner, Virginia Pelton, Selma Thorne, Irving Thorne, Harriet Hight, Don Hight, Ben White, William Finkelstein. Second row: Henry Brown, David Rutstein, Beverley Rutstein, Jack Wolf, Ria Wolf, Harry Kozol, Joseph Edwards, Virginia Edwards, Don Freeman, William Goodson, Violet Goodson. Seated: Sally Austen, George Austen, Dorothy Cooper, Alice Reidy, John Reidy, Patricia Graham, John Graham, Virginia Warthin, Thomas Warthin, Richard Thompson, John Dziob.

fiscal token of our affection. That evening at the Brookline Country Club, Rich Warren and class president Jack Reidy carried us through some memories and amenities of the past. The lobster bisque alone made the dinner outstanding. Bill Castle then treated us to some of his inimitable memories of our past and his outlook for the future.

With great meteorological foresight, eight months ago Jack Graham planned a harbor cruise for Saturday. While other reunioners sweltered ashore in the mid-90s, we feasted on clams and lobster in

the cool outer islands. Some had flights home to catch in the late afternoon, but all disembarked looking forward to our 55th. The help of Perry Culver and his staff had indeed made this a memorable anniversary celebration.

In addition to those in the two photos, classmates who returned for the reunion were Crowley, Garber, Mahlowitz, Morrison, Putnam, G. Sullivan, and Zetzel. The presence of Marie Alexander, Dorothy Cooper, and Virginia Pelton added warm memories of their husbands.

—Thomas Warthin

45th Reunion

Our 45th proved to be an unqualified success in every way. The clan gathered for the Pops concert on June 6. The following day a cocktail party and dinner at the Tavern Club were attended by 65 classmates and spouses. Within a remarkably short period of time, everyone looked exactly as he or she did when we were in medical school.

Festivities continued during the week, culminating in a weekend at the Wequas-

set Inn in Chatham, Massachusetts. A cocktail party initiated the evening festivities, followed by dinner. The following day the more vigorous played tennis and golf. The less vigorous enjoyed an afternoon nap in preparation for the evening activities.

The following day was a sad one of departure. Everyone seemed a bit happier for having renewed old acquaintances. Many expressed the hope of another reunion in less than the customary five-year interval.

According to our hitherto reliable sources, everyone returned home safely.

—Lewis W. Kane



Top row: Mrs. Stuppy, Laurence Stuppy, Walter Kemp, Paul Harwood, unidentified, Max Michael, Mrs. Stanbury, John Stanbury, James Bennett. Fourth row: unidentified, Bill Hawley, Paul Pierce, unidentified, Robert Johnson, Mrs. Johnson, Heber Johnson, Mrs. Bennett. Third row: Philip Morrison, Victor Balboni, Colin McCorriston, Mrs. McCorriston, Ed Dyer, unidentified, Fred McAllister, John Adams, Bob Hornell, Walter Tucker. Second row: William Carleton, unidentified, unidentified, Jose Gonzalez, Don Brayton, Mrs. Pierce, Leslie Pierce, Francis Moore, Mrs. McDaniel, John McDaniel. Seated: Guy Hayes, Mrs. Hayes, Steve Mahady, Mrs. Mahady, Mrs. Brayton, Eben Alexander, Lewis Kane, Mrs. Ross, Fred Ross, Mrs. Pier, Arthur Pier.

40th Reunion

Our 40th reunion was held during some of the hottest weather of the year, but all survived. Following the scientific symposium, 30 classmates and 26 wives met at the Algonquin Club for cocktails and dinner. After the alumni meeting and luncheon, 21 classmates and 20 wives made the trek to Mountain View House in Whitefield, New Hampshire.

The remainder of the weekend was enjoyed at this resort hotel with excellent facilities and a good panorama of the White Mountains. Sports activities, mountain walks, or plain rest were the order of the day Saturday, which culminated in the evening with cocktails and a clambake at poolside. Members of the class from outside New England were fascinated that this could be done so well away from the seashore. Sunday morning continued with sports and other activities, and concluded with expressions of satisfaction with the affair and pledges to return to the 45th reunion.

In spite of hot weather, the mountain location permitted sleeping under blankets at night. The golf championship was waged between Bill Faloon and Art Trott: Faloon was the victor after 36 holes. Tennis results were not recorded. Paul Shaw led several classmates and wives to view alpine flowers on Mount Washington Saturday afternoon. On Saturday, Dr. Faloon gave a lecture on obesity—including the nutritional, medical, endocrinological, surgical, orthopedic, and psychiatric aspects, thus qualifying the affair for medical attendance.

For those involved in outside activities, the only drawback was the presence of small black flies (no-see-ums). My wife was the major victim. As a result I have collected a compendium of measures of prevention and treatment of such bites based on medical and local native remedies which will be available on request.

It was pleasing to note that so many classmates have not shown their age. As might be expected, retirement and governmental interference in the practice of medicine were major topics of conversation—although less than 10 percent of the class has retired.

Finally, special thanks are extended to the rest of the committee, doctors Fallon, Kahn, Wigglesworth, Wilkins, D'Autremont, and especially the treasurer, Keith Merrill, for their help in the success of this reunion.

—Arthur W. Trott



Top row: Robert Bush, Phebe Bush, Robert Klein, Eugene Brody, unidentified, Mildred Riemenschneider, Paul Riemenschneider. Fourth row: Felix Heimberg, Paul Shaw, Rachel Shaw, Chester D'Autremont, Ruth D'Autremont, Neville Connolly, Ed Wallace, Sam McClellan, Constance Breidenbach, Warren Breidenbach. Third row: Wayne Wilkins, Susan Wilkins, Langdon Burwell, Harold Rheinlander, Mrs. Rheinlander, Charles Moss, Ernest Kahn, Mrs. Bliss, Harry Bliss. Second row: Harold Rosenbaum, Mrs. Rosenbaum, Wally Miller, Lou Selverstone, Mrs. Sanchez-Ubeda, Rafael Sanchez-Ubeda, Elizabeth Taylor, Robert Taylor, Robert Fallon, Bill Wigglesworth. Seated: Cyril Jones, Victoria Jones, Joseph Taylor, Susan Taylor, Arthur Trott, Keith Merrill, Alice Merrill, Wiley Barker, Nancy Barker, Roberta Faloon, William Faloon.

35th Reunion

Our 35th reunion got under way pleasantly on Thursday with a gradual coalescence of 49ers. Some of the scientific symposia were great. Lunch on the Vanderbilt tennis court was delicious.

Thursday night dinner brought 27 classmates and 24 guests together for a wonderful and warm visit. Reminiscences, present doings, and predictions were exchanged in a series of well-made comments to the group as a whole. Both conservative and liberal attitudes were expressed, but we were still able to air our differences warmly.

The weekend at Wequasset Inn was a big success. Nineteen classmates and 17 guests shared drinks, dinners, and activities with the youthful class of '39. The weather was warm and sunny and the swimming and boating excellent. Some of us went humpback-whale watching out of Provincetown. We recommend this activity to all who have not tried it.

The Class remains a group of interesting and special people. By Sunday departure time, some expressed regret that the reunion occurs only every five years. Here's to the 40th!

—Morgan Vigneron



Top row: Edward Bowen, Mrs. Walton, Lee Walton. Third row: Mrs. Blanch, Euan Blanch, Francis Riley, Mrs. Riley, John Morrissey, Mrs. Wright, Roger Wright, John Reardan. Second row: Bill Birchard, Robert Griggs, unidentified, Fred Peirce, Robb Rutledge, Claude Finney, Mrs. Finney, Luis Fernandez-Herhiy. Seated: Marcia Gordon, Edith Taylor, Raquel Cohen, Clare Marshall, Shirley Gallup, Louise Clark, Doris Bennett.

30th Reunion

Canny observers of the '54 reunion scene noted that we were having a little more difficulty identifying each other than five years ago. But, after three days of reuniting, we were all increasingly certain that no one had changed. Despite these technical details, as is always true of '54, initial awkwardness rapidly melted; what followed was a high-spirited, congenial, much-appreciated renewal of friendship.

Dinner at the Union Club Thursday evening was attended by 43 classmates and 29 guests—wives, children, and significant others. The evening was distinguished by no speakers whatsoever thanks to a wise decision of the reunion committee. The Union Club did itself proud with a fine menu and an excellent atmosphere for becoming reacquainted.

Our class was well represented at the Alumni Day program on Friday. Charlotte Grantz Neumann shared the knowledge that she and her husband have gleaned from 20-plus years of research on pediatric care in developing countries, and Farrokh Saidi described with characteristic eloquence and wisdom his experiences in the historic events in Iran.

The venue changed Friday afternoon to the Black Point Inn in Prout's Neck, Maine. Thirty-seven classmates and 23 others made the trip despite record-breaking heat, which had even the Maine coast sizzling. The inevitable graduations, weddings, and other family commitments took their toll so that the 60 attendees were a significantly different group. A movable feast indeed! Hugh Herman arrived aboard his 37-foot Hinckley to lend a nautical air to the proceedings. Despite advancing age, there were substantial numbers of joggers, tennis players, swimmers, bicyclists, and golfers in evidence.

Our only regret was that not all of the class could make it. See you at the 35th!

—Miles F. Shore



Top row: Eleanor Judd, A. Bradford Judd, Willi Jones, Bob Jones, Janet Tucker, Jim Tucker. Sixth row: Bud Vine, Ed Budil, Herb Goldings, Carmen Goldings, Robert De Napoli, unidentified. Fifth row: Alfred Neumann, unidentified, James Gibson, Ed Holyoke, unidentified, Joan De Napoli, Henry Garretson. Fourth row: Ann Carey, Bill Carey, Charlotte Neumann, Don Ostrow, Mrs. Rashin. Third row: June Murray, Dick Senghas, Milt Alper, Larry Baker '56, Sam Stein, Mrs. Green, Louis Rashin, Mrs. Matthews, Herb Matthews, Mrs. Garretson. Second row: Jim Boyett, Holly Boyett, Jim Upson, Mrs. Upson, Bill Green, Mary Coley, Mrs. Klingensmith, Walt Klingensmith. Seated: Mrs. Levine, Milt Levine, Bill Kramer, Mrs. Goldstein, Stan Goldstein '56, Mrs. Saidi, Farrokh Saidi.



Seventh row: Harold Williams, Tony Kris, Bob Zollinger, unidentified, Carolyn Moseley, Roger Moseley. Sixth row: unidentified, Mrs. Cumberbatch, Kathryn Kris, Graham Taylor, unidentified, Bert Litwin, Eli Messinger, Norm Robbins. Fifth row: Karl Engelman, Rudy Cumberbatch, Mrs. Burkhardt, Boyd Burkhardt, Gillian Steinhauer, Harold Renter, Bruce Steinhauer, Jim Barrett, unidentified, Arthur Herbst, unidentified, unidentified, Howard Green, Steve Reynolds, Lucian Leape. Fourth row: Bob Lees, Joe Schildkraut, Dave Rush, Allan Hobson, Irv Rosenberg, Kim McCully, Cavin Leeman, Diane Leeman, Alan Cooper, Mrs. Conway, Dick Conway. Third row: Charles Epstein, Lois Epstein, John Merrifield, Nancy Rodgers, John Rodgers, unidentified, unidentified, unidentified, Harvey Barten, Mrs. Barten, Gene Abroms, Mrs. Abroms. Second row: Robert Goldstone, Sue Goldstone, Ellen Reed, Bill Reed, unidentified, unidentified, Judith Rapoport, unidentified, Mrs. Colberg, Jim Colberg, unidentified, unidentified. Seated: Gary Cage, Carolyn Cage, Richard Rivlin, Rita Rivlin, Robert Blacklow, Wini Blacklow, Mrs. Marks, Ira Marks, Mrs. Prichard, Sarah Esselstyn Howell.

25th Reunion

A large number of us came back to Boston for our 25th reunion. Among the other worthies in attendance were Elspeth Steinhauer, the two-year-old daughter of Bruce and Gillian. Possibly the last fig on the tree of 1959, she attracted much notice.

Guests of the class for dinner Thursday evening were William B. Castle '21 and wife, Max Finland '26, and Dr. and Mrs. George Erikson. After dinner, memories

were exchanged about medical student years, and these favorite teachers responded with grace and great good humor. Also present at the dinner were Perry Culver, representatives of the Alumni Council, and Dean Tosteson.

After Alumni Day activities, we retired to York, Maine, escaping the heat of the city and spent the weekend watching sailboats, swimming, playing tennis, getting reacquainted, and renewing old friendships. A certain amount of beer and many lobsters were consumed.

—John T. Maltsberger

20th Reunion

The reunion began on an elegant note on Thursday with the class dinner, planned by Greg Kane, at the St. Botolph Club—filled nearly to overflowing with 65 class members and significant others. We renewed friendships, swapped anecdotes, and remembered those classmates lost to us. On Friday we said farewell to Perry Culver, had lunch on the Quadrangle, and survived a record-setting 97 degrees waiting for the class picture—which, when compared with our '64 Aesculapiad portraits, belies our impression that not much had changed with our class.

The moveable feast then moved to the Chatham Bars Inn on the Cape. Just as the weekend organizer, Joel Rubenstein, had planned, the weather was perfect: in the 70s and sunny, giving us all a chance to display our tennis, jogging, and swimming prowess, and compensatory trencheranship at the seven-course meals. (Vanderbilt was never like this.) Some 45 of us, with significant others and offspring, were present.

There were many concerns about the changed and changing social structure of medicine. Will it be possible to survive in practice with an ever encroaching bureaucratic straight jacket of regulations, and armies of regulators? Will research funds dry up? Balancing these concerns was a sense that, overall, our careers have gone well, and we are now tasting considerable success. There was a noticeable change since the last reunion: the applicable adverb was "mellowing," a greater sense of enjoyment of family, friends, and pleasures apart from careers. Several classmates remarked that their offspring were not going into medicine since, having seen the hours their parents put in, they judged medicine too much work and too little fun.

The award for distance traveled to the reunion was won by Jay Jackman (Hawaii), who pleased everyone by having emerged from his midlife "inferno" tanned,

vegetarian, and chipper. (Shortest distance award went in a one-block tie to the trio of Kane, Karchmer (Deaconess), and McCarley (Mass. Mental). Bob Leff furnished an example to all by appearing a significant number of pounds lighter. Some of us were pausing in midcareer (Bob Scott), or sliding off into different careers, such as Paul Bittenwieser's writing. Looking fit and delightfully recovered was Rob Roy MacGregor, and as dedicated as ever were Rob Northrup and his wife, now working in rural Alabama instead of Indonesian jungles.

In addition to those in the photo, classmates attending some part of the reunion were: Bradford, Chylack, Corlette, Dean, Dorsey, Eaton, Glickman, Hoyer, Ben and Nancy Kaltreider, Kane, Kim, Latt, Lawrence, Nieland, Pitt, Rapo, Raye, Rubenstein, Sabin, Seidman, and Zuerner.

Friendships and a sense of community among our band of time travelers had been restored, and our sense of aging and evolving together remained as we departed on a sun-drenched Sunday morning, with thoughts of our 25th.

—Robert McCarley



Top row: Carolyn Aldredge, Robert Scott, David Byar, Claude Nuzum, Patricia Vernon, Thomas Vernon, Erika Reynolds, Bob Reynolds, Ira Ehrlich. Third row: Robert Northrup, Quincy Northrup, Terry Bennett, Bob Hopkins, Frank Williams, Dodie Tudor, John Tudor, Jonathan Rhoads. Second row: Joseph Hurd, Rob MacGregor, Peggy MacGregor, Robert Leff, Laura Crystal, Raymond Crystal, James Swarr. Seated: Jonathan Rosefsky, Sue Rosefsky, David Chapin, Robert McCarley, Jay Jackman.

15th Reunion

The Class of '69 met Friday night in the Paris Room of Quincy Market for cocktails and dinner. Most of the Friday night contingent were representatives of the Boston branch of the Class, but notable out-of-towners were Bill Seaman (from San Francisco—longest distance traveled), George Khoury, Sharon Murphy, Howie Snyder, Steve Hall, and Tom Hyde.

Saturday, we gathered at the Kanner's beautiful house in Concord for a delightful clambake and a day of swimming and tennis. Many progeny of the Class of '69 were in attendance—spanning the ages from diapers to college. It was already clear that there is some future HMS material here—the apples don't fall far from the trees. For example, I'd love to see Jonathan Kolb teaching psychiatry to



Standing: Morton Kahan, Eileen Kahan, Sharon Murphy, Merrill Liteplo. Seated: Robert Mayer, Mary Gimbrone, Michael Gimbrone, Michaela Gimbrone.

his son who talks and acts just like him.

On the whole, people looked good and seemed quite comfortable with how life is going. It was noted by many that family issues had become much more important in the past few years.

A special thanks to Lennie Kaban for

collecting the money, Don Goldman for editing the "redbook," Merrill Liteplo for planning Friday's dinner, and most of all to the Kanners for their gracious hospitality.

—George E. Thibault



Standing: Jacqueline Moore, Harold Harden '76, Peggy Baker, Christopher Baker, Susan Weil. Seated: Richard and Colette Meltzer and daughters, Elaine and David Koh and daughters, Gloria Singleton-Gaston.

10th Reunion

The 10th reunion of the Class of 1974 got off to a hot start—quite literally—with a dinner on Friday evening at the Tavern Club. This quaint old establishment, located near Boston's theater district, was built well before the invention of air conditioning, or even the electric fan, a fact made all too apparent by the record 90+ degree temperatures which marked the weekend. Fortunately the bar was well stocked with ice.

Everyone got a chance to cool off a bit on Saturday afternoon with a clambake at Steep Hill Beach near Ipswich. It was a real family affair with children almost outnumbering adults. Procreation seems to have been a popular activity for many since leaving HMS.

In addition to those who appear in the photo, classmates attending one or more of the reunion events included Benotti, Blumenthal, Bruce, Calkins, Finklestein, Franklin, Hammond, Higgins, Hobbs, Jean-Baptiste, Marguillies, Marsh, Max, May, McCabe, McFadden, Mulley, Najarian, J. Newburger, P. Newburger, R. Rose, Ross, Russell, Silvestri, Speller, M. Stark, R. Stark, Sudarsky, Taylor, Tenenbaum, and Vasile. The long-distance

travel awards went to Larry May (Los Angeles) and Tim Russell (Seattle), with more than honorable mention to Cal Bruce, who drove in with his family from Madison, Wisconsin.

—David Calkins

5th Reunion

The Class of '79 reconvened for its fifth reunion in an event most likely to be remembered for the heat and the abundance of new offspring since graduation. Turnout for Alumni Day was a bit disappointing, but the Friday evening party at Anne St. Goar's family home in Brookline was a great success. Thirty-six classmates, 27 spouses, and 20 or more children shared reminiscences, tales of residencies and fellowships, and future plans. The Boston contingent dominated, though many of us had not met since graduation. Liz Kincannon won the distance award by flying in from Denver. Nancy Bennet and Gerry Aurigemma tried to get credit for coming from San Francisco, but they had moved east two months before.

Saturday saw the reunion clambake

at Perry Culver's house in Lincoln—his last as director of alumni relations. He has been donating his help and hospitality to appreciative fifth reunion classes for years. Most of us were immobilized by the heat and beer, so there was lots of chance to visit while we waited for the food. Frank Biro and Rich Maziarz submitted to mental status testing after running out from Boston on the 100° afternoon. Chris Doyle qualified as the only beeper-carrying resident in sight.

As with graduation, this seemed to be a time of transition for much of the class. Many are contemplating "real jobs" as their fellowships and residencies finish. There seemed to be less enthusiasm and excitement than five years ago when we were contemplating internships. The options seem more limited and better known. Many are making difficult compromises as they balance career decisions with the family priorities that had been sacrificed through training.

It was great to share memories with so many of our classmates. As always, there was sadness that visits were brief and that many we had hoped to see hadn't been able to come. Hopefully they will be at the tenth in 1989.

—David Cochran



Dan Rome, Nancy Bennet, Philip Aurigemma, Gerry Aurigemma, David Cochran.



The Travel Program Of Alumni Flights Abroad



This is a private travel program especially planned for the alumni of Harvard, Yale, Princeton and certain other distinguished universities. Designed for the educated and intelligent traveler, it is specifically planned for the person who might normally prefer to travel independently, visiting distant lands and regions where it is advantageous to travel as a group. The itineraries follow a carefully planned pace which offers a more comprehensive and rewarding manner of travel, and the programs include great civilizations, beautiful scenery and important sights in diverse and interesting portions of the world:

TREASURES OF ANTIQUITY: The treasures of classical antiquity in Greece and Asia Minor and the Aegean Isles, from the actual ruins of Troy and the capital of the Hittites at Hattusas to the great city-states such as Athens and Sparta and to cities conquered by Alexander the Great (16 to 38 days). **VALLEY OF THE NILE:** An unusually careful survey of ancient Egypt that unfolds the art, the history and the achievements of one of the most remarkable civilizations the world has ever known (19 days). **MEDITERRANEAN ODYSSEY:** The sites of antiquity in the western Mediterranean, from Carthage and the Roman cities of North Africa to the surprising ancient Greek ruins on the island of Sicily, together with the island of Malta (23 days).

EXPEDITION TO NEW GUINEA: The primitive stone-age culture of Papua-New Guinea, from the spectacular Highlands to the tribes of the Sepik River and the Karawari, as well as the Baining tribes on the island of New Britain (22 days). The **SOUTH PACIFIC:** a magnificent journey through the "down under" world of New Zealand and Australia, including the Southern Alps, the New Zealand Fiords, Tasmania, the Great Barrier Reef, the Australian Outback, and a host of other sights. 28 days, plus optional visits to South Seas islands such as Fiji and Tahiti.

INDIA, CENTRAL ASIA AND THE HIMALAYAS: The romantic world of the Moghul Empire and a far-reaching group of sights, ranging from the Khyber Pass and the Taj Mahal to lavish forts and palaces and the snow-capped Himalayas of Kashmir and Nepal (26 or 31 days). **SOUTH OF BOMBAY:** The unique and different world of south India and Sri Lanka (Ceylon) that offers ancient civilizations and works of art, palaces and celebrated temples, historic cities, and magnificent beaches and lush tropical lagoons and canals (23 or 31 days).

THE ORIENT: The serene beauty of ancient and modern Japan explored in depth, together with the classic sights and civilizations of southeast Asia (30 days). **BEYOND THE JAVA SEA:** A different perspective of Asia, from headhunter villages in the jungle of Borneo and Batak tribal villages in Sumatra to the ancient civilizations of Ceylon and the thousand-year-old temples of central Java (34 days).

EAST AFRICA AND THE SEYCHELLES: A superb program of safaris in the great wilderness areas of Kenya and Tanzania and with the beautiful scenery and unusual birds and vegetation of the islands of the Seychelles (14 to 32 days).

DISCOVERIES IN THE SOUTH: An unusual program that offers cruising among the islands of the Galapagos, the jungle of the Amazon, and astonishing ancient civilizations of the Andes and the southern desert of Peru (12 to 36 days), and **SOUTH AMERICA**, which covers the continent from the ancient sites and Spanish colonial cities of the Andes to Buenos Aires, the spectacular Iguassu Falls, Rio de Janeiro, and the futuristic city of Brasilia (23 days).

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Prices range from \$2,225 to \$5,895. Fully descriptive brochures are available, giving the itineraries in complete detail. For further information, please contact:

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